

TOSHIBA

OWNER'S MANUAL

Projection Television

COLORSTREAM®

SRS
WOW

TouchFocus®

HDMI

THEATERWIDE HD

HDTV
MONITOR

51H85C

57H85C

65H85C

Owner's Record

The model number and serial number are on the back of your TV. Record these numbers in the spaces below. Refer to these numbers whenever you communicate with your Toshiba dealer about this TV.

Model:

Serial No.:

Introduction

Connecting
your TV

Using the
remote control

Setting up
your TV

Using the TV's
Features

Appendix

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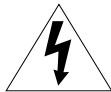
Dear Customer,

Thank you for purchasing this Toshiba TV. This manual will help you use the many exciting features of your new TV. **Before operating the TV, please read this manual completely**, and keep it nearby for future reference.

Safety Precautions

WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.



WARNING
RISK OF ELECTRIC SHOCK
DO NOT OPEN



WARNING: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The lightning symbol in the triangle tells you that the voltage inside this product may be strong enough to cause an electric shock. **DO NOT TRY TO SERVICE THIS PRODUCT YOURSELF.**



The exclamation mark in the triangle tells you that important operating and maintenance instructions follow this symbol.

NOTICE OF POSSIBLE ADVERSE EFFECTS ON TV PICTURE DISPLAY

If a fixed (non-moving) pattern or image remains on the TV screen for extended periods of time, the image can become permanently ingrained in the cathode ray tube(s) of the TV and cause subtle but permanent ghost images. **This type of damage is NOT COVERED BY YOUR WARRANTY.** See item 33 on page 4 for details.



NOTE: NEVER CONNECT THIS TV TO A PERSONAL COMPUTER (PC).
THIS TV IS NOT INTENDED FOR USE WITH A PC.

Child Safety

It Makes A Difference Where Your TV Stands



Congratulations on your purchase! As you enjoy your new TV, keep these safety tips in mind:

The Issue

- ☐ If you are like most consumers, you have a TV in your home. Many homes, in fact, have more than one TV.
- ☐ The home theater entertainment experience is a growing trend, and larger TVs are popular purchases; however, they are not always supported on the proper TV stands.
- ☐ Sometimes TVs are improperly secured or inappropriately situated on dressers, bookcases, shelves, desks, audio speakers, chests, or carts. As a result, TVs may fall over, causing unnecessary injury.

Toshiba Cares!

- ☐ The consumer electronics industry is committed to making home entertainment enjoyable and safe.
- ☐ The Consumer Electronics Association formed the Home Entertainment Support Safety Committee, comprised of TV and consumer electronics furniture manufacturers, to advocate children's safety and educate consumers and their families about television safety.



Tune Into Safety

- ☐ One size does NOT fit all! Use appropriate furniture large enough to support the weight of your TV (and other electronic components).
- ☐ Use appropriate angle braces, straps, and anchors to secure your furniture to the wall (but never screw anything directly into the TV).
- ☐ Carefully read and understand the other enclosed instructions for proper use of this product.
- ☐ Do not allow children to climb on or play with furniture and TVs.
- ☐ Avoid placing any item on top of your TV (such as a VCR, remote control, or toy) that a curious child may reach for.
- ☐ Remember that children can become excited while watching a program and can potentially push or pull a TV over.
- ☐ Share our safety message about this hidden hazard of the home with your family and friends. Thank you!

Important Safety Instructions

- 1) **Read these instructions.**
- 2) **Keep these instructions.**
- 3) **Heed all warnings.**
- 4) **Follow all instructions.**

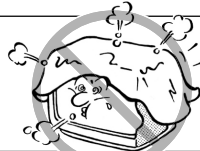


- 5) **Do not use this apparatus near water.**

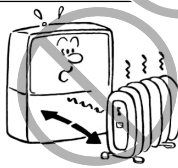


- 6) **Clean only with a dry cloth.**

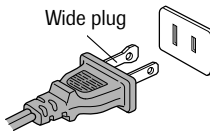
- 7) **Do not block any ventilation openings.** Install in accordance with the manufacturer's instructions.



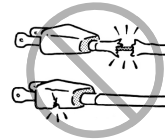
- 8) **Do not install near any heat sources** such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.



- 9) **Do not defeat the safety purpose of the polarized or grounding type plug.** A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.



- 10) **Protect the power cord** from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where it exits the apparatus.

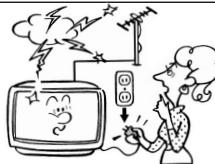


- 11) **Only use attachments/accessories specified by the manufacturer.**

- 12) **Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus.** When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

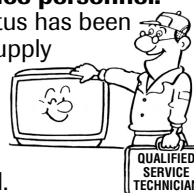


- 13) **Unplug this apparatus during lightning storms or when unused for long periods of time.**



- 14) **Refer all servicing to qualified service personnel.**

Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



- 15) **CAUTION:** To reduce the risk of electric shock, do not use the polarized plug with an extension cord, receptacle, or other outlet unless the blades can be inserted completely to prevent blade exposure.

Installation, Care, and Service

Installation

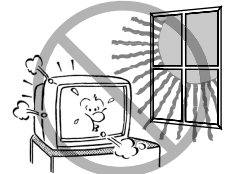
Follow these recommendations and precautions and heed all warnings when installing your TV:

- 16) Never modify this equipment. Changes or modifications may void: a) the warranty, and b) the user's authority to operate this equipment under the rules of the Federal Communications Commission.

- 17) **DANGER: RISK OF SERIOUS PERSONAL INJURY, DEATH, OR EQUIPMENT DAMAGE!** Never place the TV on an unstable cart, stand, or table. The TV may fall, causing serious personal injury, death, or serious damage to the TV.



- 18) Never place or store the TV in direct sunlight; hot, humid areas; areas subject to excessive dust or vibration; or locations with temperatures at or below 41°F (5°C).



- 19) Always place the TV on the floor or a sturdy, level, stable surface that can support the weight of the unit.



- 20) Never place items such as vases, aquariums, or candles on top of the TV.



- 21) Never block or cover the slots or openings in the TV cabinet back, bottom, and sides. Never place the TV:

- on a bed, sofa, rug, or similar surface;
- too close to drapes, curtains, or walls; or
- in a confined space such as a bookcase, built-in cabinet, or any other place with poor ventilation.



The slots and openings are provided to protect the TV from overheating and to help maintain reliable operation of the TV.



- 22) Never allow anything to rest on or roll over the power cord, and never place the TV where the power cord is subject to wear or abuse.

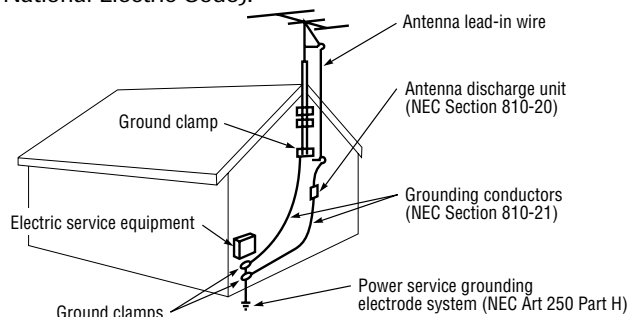


- 23) Never overload wall outlets and extension cords.

- 24) Always operate this equipment from a 120 VAC, 60 Hz power source only.



- 25) Always make sure the antenna system is properly grounded to provide adequate protection against voltage surges and built-up static charges (see Section 810 of the National Electric Code).



26) **DANGER: RISK OF SERIOUS PERSONAL INJURY OR DEATH!**



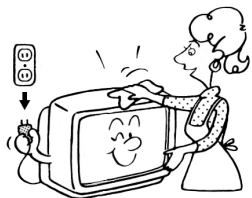
- Use extreme care to make sure you are never in a position where your body (or any item you are in contact with, such as a ladder or screwdriver) can accidentally touch overhead power lines. Never locate the antenna near overhead power lines or other electrical circuits.
- Never attempt to install any of the following during lightning activity:
 - a) an antenna system; or b) cables, wires, or any home theater component connected to an antenna or phone system.

Care

For better performance and safer operation of your TOSHIBA TV, follow these recommendations and precautions:

- 27) Always sit approximately 10–25 feet away from the TV and as directly in front of it as possible. The picture can appear dull if you sit too far to the left or right of the TV, or if sunlight or room lights reflect on the screen. Turn the TV off to check for reflections on the screen, and then remove the source of reflections while viewing the TV.

- 28) Always unplug the TV before cleaning. Never use liquid or aerosol cleaners.



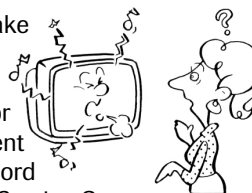
- 29) **WARNING: RISK OF ELECTRIC SHOCK!** Never spill liquids or push objects of any kind into the TV cabinet slots.



- 30) [This item applies to projection TVs only.] If the air temperature rises suddenly (for example, when the TV is first delivered), condensation may form on the lenses. This can make the picture appear distorted or the color appear faded. If this happens, turn off the TV for 6 to 7 hours to allow the condensation to evaporate.

- 31) For added protection of your TV from lightning and power surges, always unplug the power cord and disconnect the antenna from the TV if you leave the TV unattended or unused for long periods of time.

- 32) During normal use, the TV may make occasional snapping or popping sounds. This is normal, especially when the unit is being turned on or off. If these sounds become frequent or continuous, unplug the power cord and contact a Toshiba Authorized Service Center.



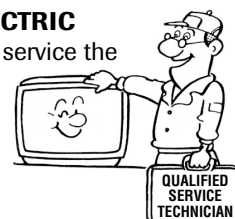
- 33) **Possible Adverse Effects on TV Picture Display:** If a fixed (non-moving) pattern or image remains on the TV screen for extended periods of time, the image can become permanently ingrained in the cathode ray tube(s) of the TV and cause subtle but permanent ghost images. **This type of damage is NOT COVERED BY YOUR WARRANTY.**

Never leave the TV on for extended periods of time while it is displaying the following images or formats:

- **Fixed Images**, including but not limited to PIP/POP windows, closed captions, video game patterns, TV station logos, stock tickers, and websites.
- **Special Formats** that do not use the entire screen, including but not limited to widescreen or letterbox format media viewed on a 4:3 aspect ratio display (with gray or black bars at the top and bottom of the screen); or 4:3 aspect ratio format media viewed on a widescreen/16:9 aspect ratio display (with gray or black bars on the left and right sides of the screen).

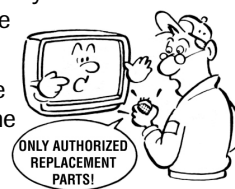
Service

- 34) **WARNING: RISK OF ELECTRIC SHOCK!** Never attempt to service the TV yourself. Opening and removing the covers may expose you to dangerous voltage or other hazards. Refer all servicing to a Toshiba Authorized Service Center.



- 35) If you have the TV serviced:

- Ask the service technician to use only replacement parts specified by the manufacturer.
- Upon completion of service, ask the service technician to perform routine safety checks to determine that the TV is in safe operating condition.



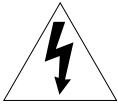
- 36) When the TV reaches the end of its useful life, ask a qualified service technician to properly dispose of the TV. Improper disposal may result in a picture tube implosion and possible personal injury.

Important Safety Precautions for Split Cabinet Feature

(Models 57H85C and 65H85C only)

Toshiba TV models 57H85C and 65H85C have a split cabinet feature that allows disassembly of the cabinet into two sections during installation.

For details, please refer to the insert titled "Disassembly/ Reassembly Instructions for Split Cabinet Feature" included with this owner's manual in the accessory pack. If you do not have the insert, you can download a copy of it from our Web site www.toshiba.ca. If you do not have access to the Internet, call 1-800-268-3404.



WARNING: If you split the cabinet for any purpose, **NEVER** energize the bottom section until it is completely and properly installed.

Energizing the disassembled bottom section and subjecting it to intentional misuse (for example, exposing it to a foreign object) creates the potential for an electrical shock hazard that could result in death or serious injury.

CAUTION: If you use the split cabinet feature, **ALWAYS** handle and treat the top section of the TV cabinet, which contains a glass mirror, with great care. If subjected to excessive mechanical abuse (for example, if bumped or dropped), the mirror may break, creating exposed glass fragments with sharp edges. Contact with these glass fragments may result in injury.

Installation, Care, and Service

CAUTION: The split cabinet feature allows disassembly of the cabinet into two sections during installation. If you use the split cabinet feature, follow these precautions while the two sections of the TV cabinet are disassembled:

- 1) Always handle and treat the top section of the TV cabinet (with the viewing screen), which contains a glass mirror, with great care. If subjected to excessive mechanical abuse (for example, if bumped or dropped), the mirror may break, creating exposed glass fragments with sharp edges. Contact with these glass fragments may result in injury.
- 2) Never temporarily locate the disassembled bottom section in an area where it may be exposed to foreign objects or abuse (for example, areas where children may be playing, where items may fall on top of the unit, or where liquids may spill into the unit). Failure to follow this instruction may result in damage to the optic components of the TV. **SUCH DAMAGE IS NOT COVERED UNDER THE TOSHIBA LIMITED WARRANTY.**
- 3) Always keep the top and bottom sections of the TV cabinet in an upright position while disassembled. Failure to follow this instruction may result in damage to the TV, including but not limited to the optic components, cabinet, bezel, and glass mirror. **SUCH DAMAGE IS NOT COVERED UNDER THE TOSHIBA LIMITED WARRANTY.**
- 4) **Never energize the bottom section of the TV cabinet while disassembled. Failure to follow this instruction could result in death or serious injury.**
- 5) Never place anything on top of the disassembled bottom section of the TV cabinet. Failure to follow this instruction may result in damage to the optic components. **SUCH DAMAGE IS NOT COVERED UNDER THE TOSHIBA LIMITED WARRANTY.**
- 6) Never store or transport the unit while it is disassembled. Failure to follow this instruction may result in damage to the TV, including but not limited to the optic components, cabinet, bezel, and glass mirror. **SUCH DAMAGE IS NOT COVERED UNDER THE TOSHIBA LIMITED WARRANTY.**

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Introduction

Welcome to Toshiba

Congratulations! You have purchased one of the finest projection TVs on the market. The goal of this manual is to guide you through setting up and operating your Toshiba TV as quickly as possible.

This manual applies to models 51H85C, 57H85C, and 65H85C. Before you start reading, check the model and serial numbers on the back of your TV. Write these numbers in the space provided on the front cover of this manual for your records.

Instructions in this manual are based on using the remote control. You also can use the controls on the TV if they have the same name as those on the remote control.

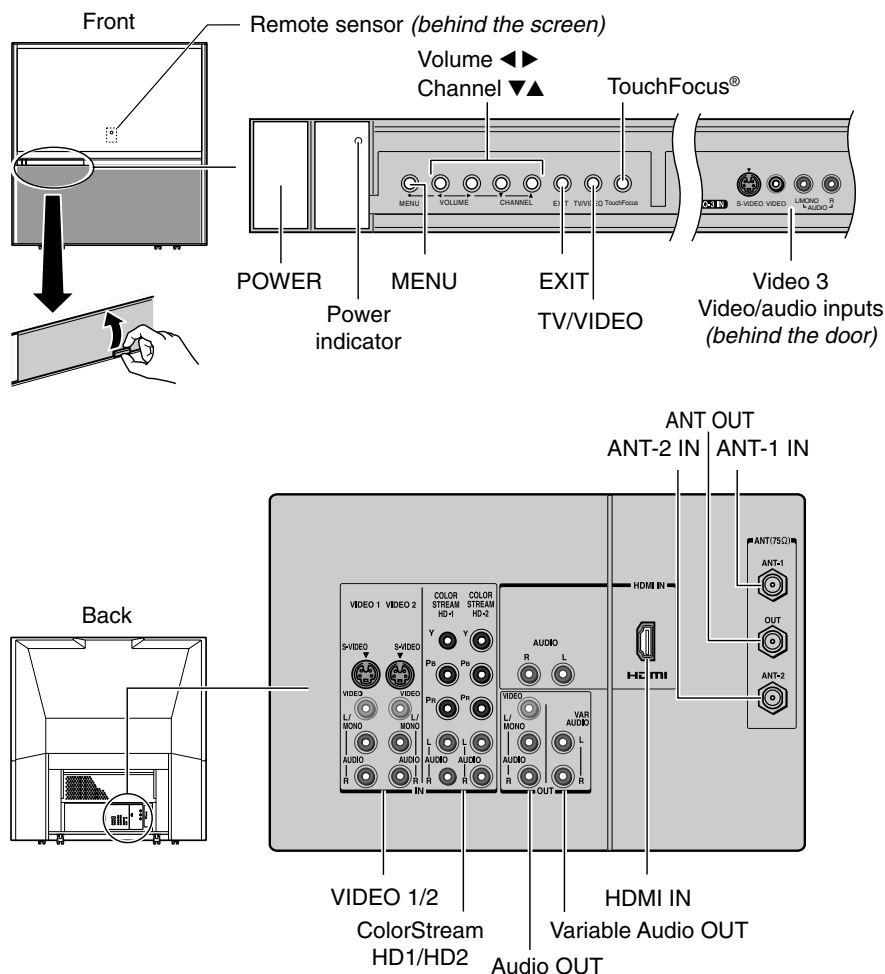
Please read all the safety and operating instructions carefully, and keep the manual for future reference.

Please push TouchFocus button after setup

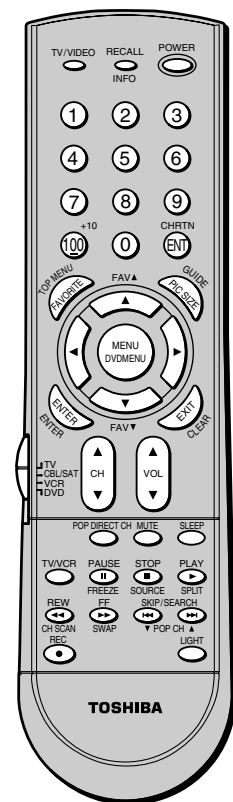
Convergence may drift as a result of relocating or adjusting the position of the TV. The TV automatically adjusts color convergence by using the TouchFocus® system. After setting up your TV, it is recommended that you set the convergence by pressing TouchFocus on the front panel. For instructions on manually adjusting the color convergence, see page 27.

Exploring your new TV

You can operate your TV using the buttons on the front panel or the remote control. The back panel and front panel (behind the door) provide all the terminal connections you will need to connect other equipment to your TV. See "Connecting your TV" on page 8. Illustrations represent 57H85C.



Remote control



Connecting your TV

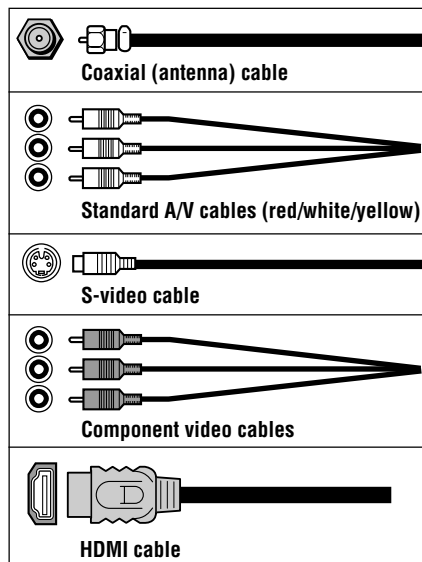
Note: Cables are not supplied with your TV.

- **Coaxial cable** is the cable that comes in from your antenna, cable TV service, or cable converter box. Coaxial cable uses “F” connectors.
- **Standard A/V (audio/video) cables** usually come in sets of three, and are typically color-coded according to use: yellow for video, red for stereo right audio, and white for stereo left (or mono) audio. On your TV's back panel, the standard A/V inputs are color-coded in the same manner as the cables.
- **S-video cable** is for use with video equipment that has an S-video input.
- **Component video cables** come in sets of three, and are for use with video equipment that has component video inputs. (ColorStream® is Toshiba's brand of component video.)
- **HDMI cable** is for use with video equipment that has an HDMI type A connector (see page 15).

NOTE REGARDING PICTURE QUALITY

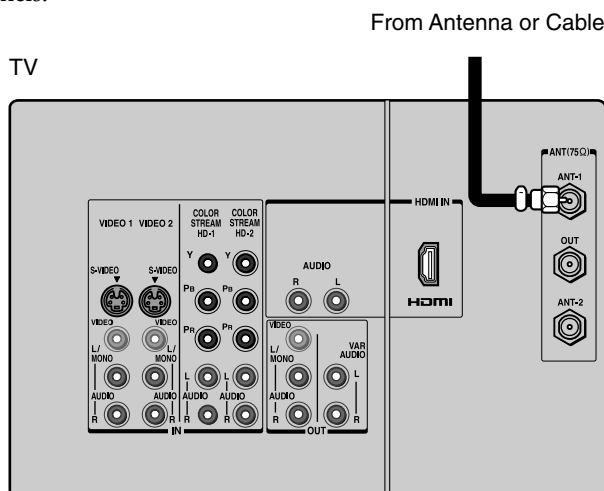
When connecting video equipment to your Toshiba TV:

- **For GOOD picture quality:** Use a standard yellow video cable.
- **For BETTER picture quality:** If your equipment has an S-video input, use an S-video cable **instead of** a standard yellow video cable. (You still must connect the standard red and white audio cables for full system connection, but do not connect the standard yellow video cable at the same time, or the picture performance will be unacceptable.)
- **For BEST picture quality:** If your equipment has component video (or HDMI) inputs, use either component video cables (or an HDMI cable) **instead of** a standard video or S-video cable. (You still must connect the standard red and white audio cables for full component video system connection. An HDMI connection does not require separate audio cables.)



NOTICE:
RISK OF EQUIPMENT DAMAGE!
Do not plug in any power cords
until you have finished connecting all equipment.

This connection allows you to watch TV programs or basic cable channels.



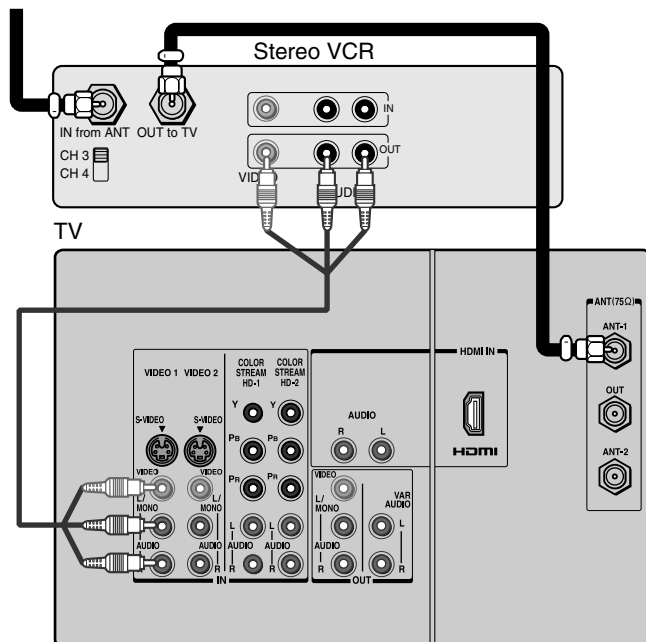
Connecting a VCR

This connection allows you to watch local channels and video programs, play or record on the VCR while watching TV, and record from one channel while watching another channel.

You will need:

- two coaxial cables
- one set of standard A/V cables

From Cable Box or Antenna



Note:

If you have a mono VCR, connect L/Mono to VCR Audio OUT using only one audio cable.

If you have a VCR with S-video, use an S-video cable (in the S-video jacks) instead of the standard video cable.

Do not connect a standard video cable and an S-video cable to Video-1 (or Video-2) at the same time, or the picture performance will be unacceptable.

The unauthorized recording, use, distribution, or revision of television programs, videotapes, DVDs, and other materials is prohibited under Copyright Law and may subject you to civil and criminal liability.

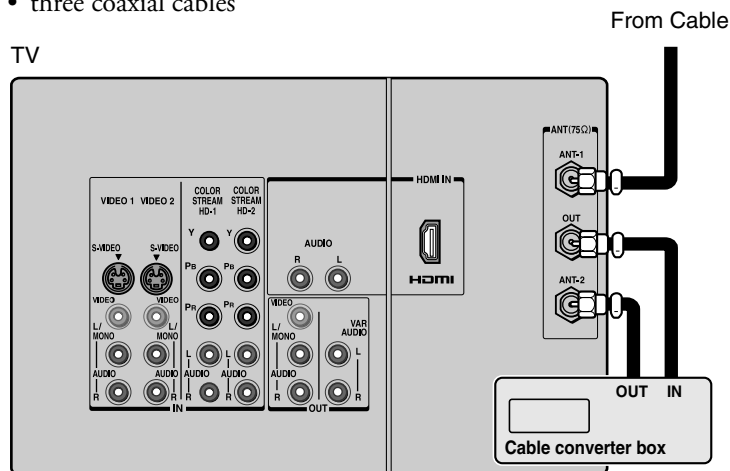
Connecting a cable converter box

This connection allows you to watch basic and premium cable channels.

To watch basic cable and use the TV's features, select ANT-1. To view premium channels, select ANT-2, tune the TV to channel 3 or 4 (whichever channel is vacant in your area), and use the converter box to change channels.

You will need:

- three coaxial cables



Note:

When you use a converter box with your TV, the remote control will not operate some features, such as programming your favorite channels, labeling channels, and locking channels.

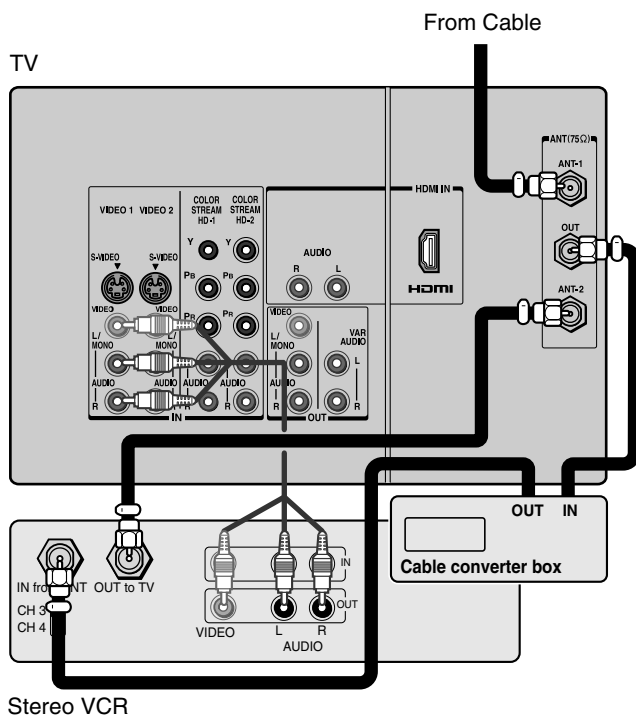
Connecting a cable converter box and VCR

This connection allows you to watch and record basic and premium cable channels, watch videotapes, and record one channel while watching another channel. To watch basic cable and use the TV's features, select ANT-1.

To view premium channels or record with the VCR, select ANT-2, tune the TV and VCR to channel 3 or 4 (whichever channel is vacant in your area), and use the converter box to change channels.

You will need:

- four coaxial cables
- one set of standard A/V cables



Note:

If you have a mono VCR, connect L/Mono to VCR Audio OUT using only one audio cable.

If you have a VCR with S-video, use an S-video cable (in the S-video jacks) instead of a standard video cable. Do not connect a standard video cable and an S-video cable to Video-1 (or Video-2) at the same time, or the picture performance will be unacceptable.

When you use a converter box with your TV, the remote control will not operate some features, such as programming your favorite channels, labeling channels, and locking channels.

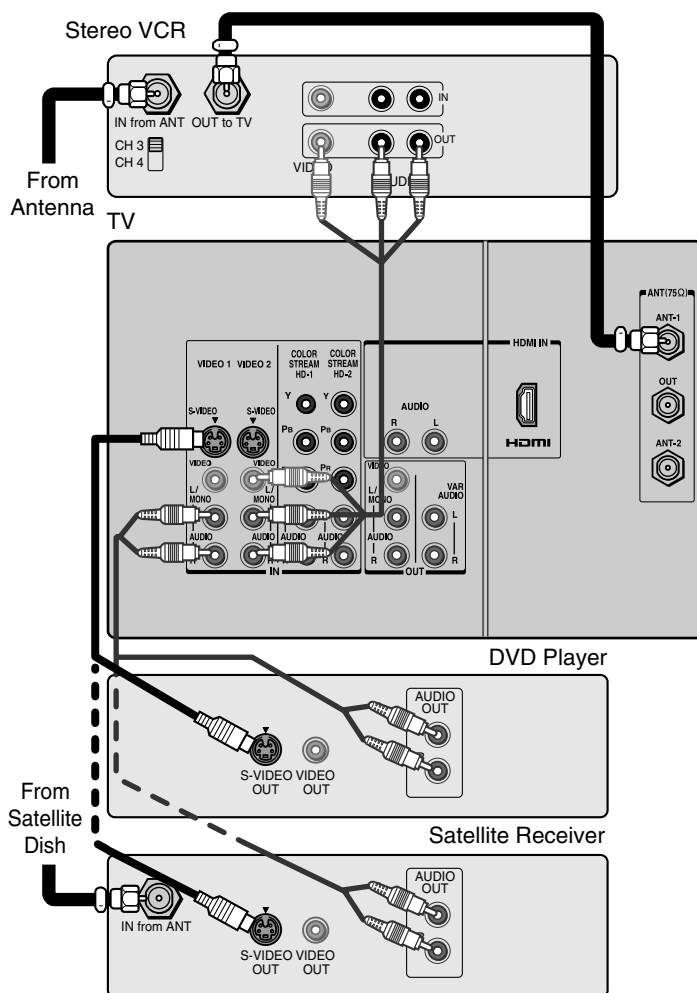
The unauthorized recording, use, distribution, or revision of television programs, videotapes, DVDs, and other materials is prohibited under Copyright Law and may subject you to civil and criminal liability.

Connecting a DVD player or satellite receiver and a VCR

This connection allows you to watch DVD/satellite, VCR, and TV programs, and record one TV channel while watching another channel.

You will need:

- two (or three, if satellite receiver is used) coaxial cables
- one set of standard A/V cables (between the TV and VCR) (plus one additional set of standard A/V cables if satellite receiver is used)
- one S-video cable (between the TV and DVD player/satellite receiver)
- one pair of standard audio cables (between the TV and DVD player/satellite receiver)



Note:

For the highest possible picture quality from a DVD player or satellite receiver without component video or HDMI, use an S-video cable. (If your DVD player has component video, see page 12. If your DVD player or satellite receiver has HDMI or DVI, see page 15.)

Do not connect both an S-video cable and a standard video cable between the TV and DVD player/satellite receiver at the same time or the picture performance will be unacceptable.

Do not connect the DVD player/satellite receiver and VCR to the same set of Video inputs on the TV. (See the illustrations, which show the DVD player/satellite receiver connected to Video-1 on the TV, and the VCR connected to Video-2 on the TV.)

The unauthorized recording, use, distribution, or revision of television programs, videotapes, DVDs, and other materials is prohibited under Copyright Law and may subject you to civil and criminal liability.

Connecting a DVD player with ColorStream® (component video) and a VCR

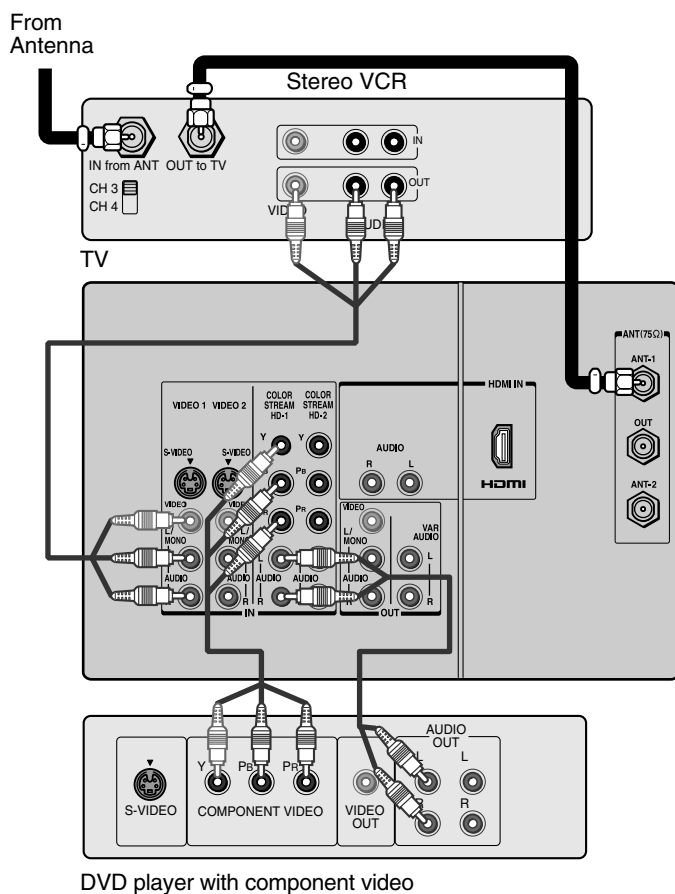
This connection allows you to watch DVD, VCR, and TV programs, and record TV programs.

Your TV has ColorStream® (component video) inputs. Connecting your TV to a DVD player with component video inputs (such as a Toshiba DVD player with ColorStream®) can greatly enhance picture quality and realism.

- To record one TV program while watching another TV program, tune the VCR to the channel to record, and tune the TV to the channel to watch.
- To record a TV program while watching a DVD, tune the VCR to the channel to record, and select ColorStream HD1 on the TV (see “Selecting the antenna input” on page 24).

You will need:

- two coaxial cables
- one set of standard A/V cables
- one pair of audio cables
- one set of component video cables (one S-video cable for a DVD player without component video inputs; see notes at right)



Note:

For the highest possible picture quality, use component video cables (or an HDMI cable) between the TV and DVD player.

You can connect the component video cables to either set of the ColorStream jacks on the TV (HD1 or HD2).

For HDMI or DVI connection, see page 15.

The ColorStream HD1/HD2 and HDMI jacks can be used with Progressive (480p, 720p) and Interlaced (480i, 1080i) scan systems; however, a 1080i signal will provide the best picture performance.

If your DVD player is not compatible with component video, HDMI, or DVI, use the S-video connections (plus the standard audio connections) instead (see page 11).

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Connecting a DTV receiver/set-top box with ColorStream® (component video) and a VCR

This connection allows you to watch DTV (digital TV), VCR, and TV programs, and record DTV and TV programs.

Your TV has ColorStream (component video) inputs. Connecting your TV to a DTV receiver with component video inputs can greatly enhance picture quality and realism.

- To record and watch a DTV program, select LINE IN on the VCR, and select ColorStream HD2 (or VIDEO 1 for a non-ColorStream connection) on the TV (see “Selecting the antenna input” on page 24).
- To record a TV program while watching a DTV program, tune the VCR to the channel to record, and select ColorStream HD2 on the TV.
- To record and watch the same TV program, tune the VCR to the channel to record, and select VIDEO 1 on the TV.
- To record one TV program while watching another TV program, tune the VCR to the channel to record, and tune the TV to the channel to watch.

You will need:

- three coaxial cables
- two sets of standard A/V cables
- one pair of audio cables
- one set of component video cables (one S-video cable for a DTV receiver without component video; see notes at right)

Note:

For the highest possible picture quality, use component video cables (or an HDMI cable) between the TV and DTV receiver/set-top box.

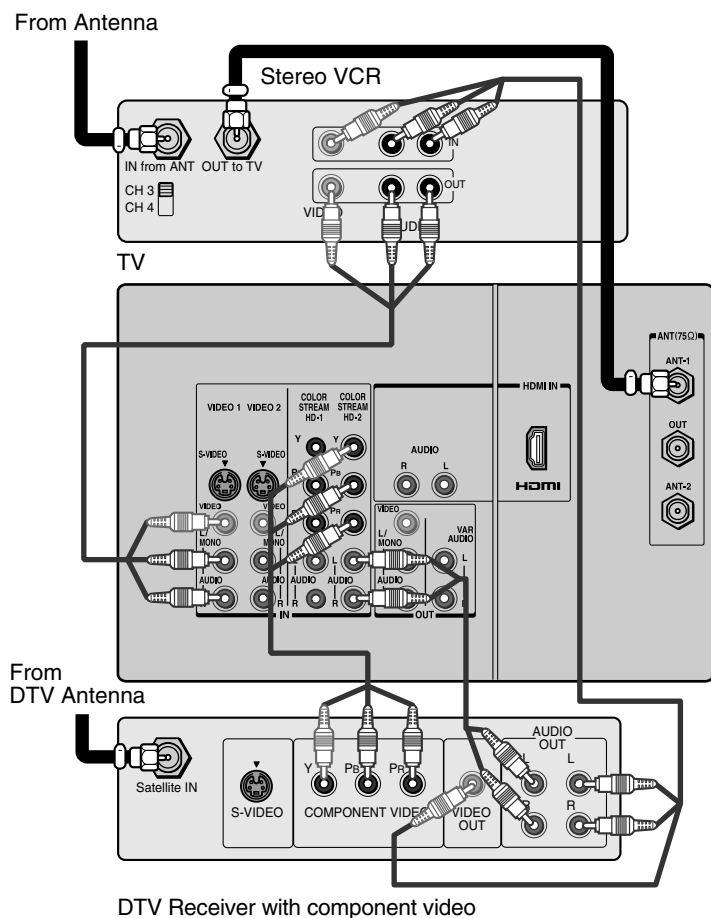
You can connect the component video cables to either set of ColorStream jacks on the TV (HD1 or HD2).

For HDMI or DVI connection, see page 15.

The ColorStream HD1/HD2 and HDMI jacks can be used with Progressive (480p, 720p) and Interlaced (480i, 1080i) scan systems; however, a 1080i signal will provide the best picture performance.

If your DTV receiver or set-top box is not compatible with component video, HDMI, or DVI, use the S-video connections (plus the standard audio connections) instead (see page 11).

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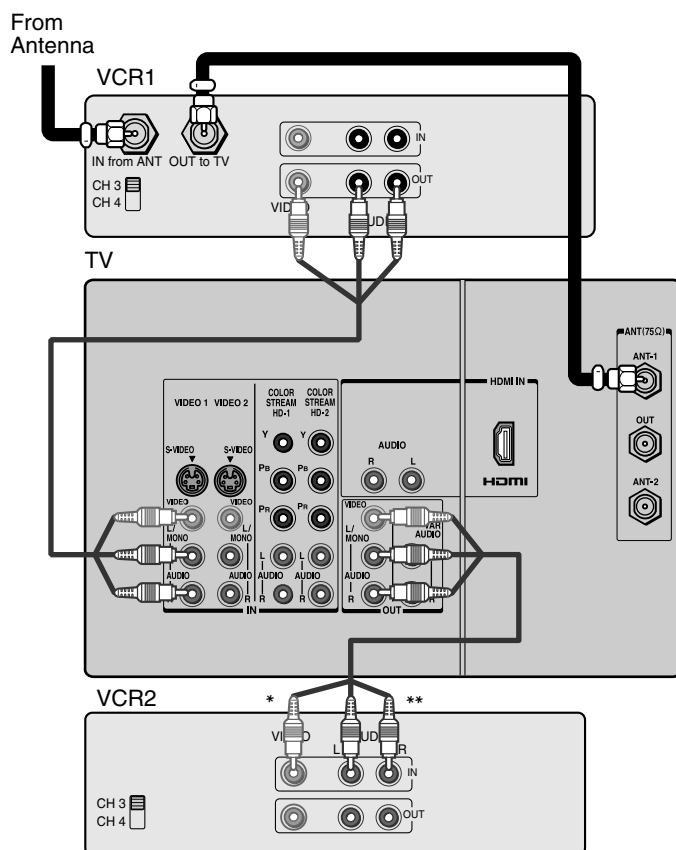


Connecting two VCRs

This connection allows you to record (dub/edit) from one VCR to another VCR while watching a videotape. You can also record from one TV channel while watching another TV channel.

You will need:

- two coaxial cables
- two sets of standard A/V cables



Note:

If you have VCRs with S-video, use S-video cables instead of standard video cables for better picture performance. Do not connect both a standard video cable and an S-video cable to Video-1 (or Video-2) at the same time, or the picture performance will be unacceptable.

Do not connect the same VCR to the output and input jacks on the TV at the same time. To dub or edit, VCR 2 must select Line IN, and the TV must select VIDEO 1 (see "Selecting the antenna input" on page 24).

* The Video OUT jack does not output the POP picture.

** The Audio OUT jacks can output the sound of either the Main or POP picture (see "Selecting the Audio OUT sound" on page 57).

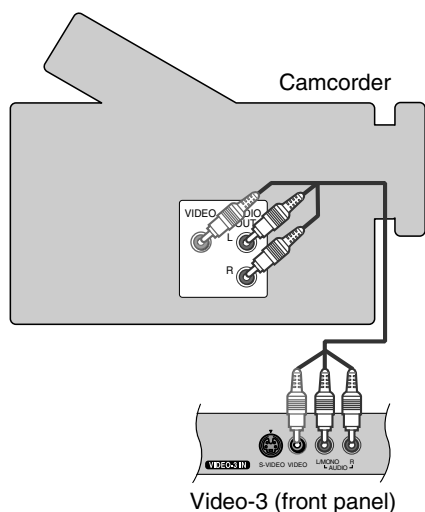
The unauthorized recording, use, distribution, or revision of television programs, videotapes, DVDs, and other materials is prohibited under Copyright Law and may subject you to civil and criminal liability.

Connecting a camcorder

This connection allows you to watch video materials recorded on a camcorder.

You will need:

- one set of standard A/V cables



Note:

If you have a camcorder with S-video, use an S-video cable instead of a standard video cable for better picture performance. Do not connect both a standard video cable and an S-video cable at the same time, or the picture performance will be unacceptable.

Connecting an HDMI™ or a DVI device to the HDMI input

The HDMI^[1] input on your TV receives digital audio and uncompressed digital video from an HDMI device or uncompressed digital video from a DVI^[2] device.

This input is designed to accept HDCP^[3] program material in digital form from EIA/CEA-861/861B-compliant^[4] consumer electronic devices (such as a set-top box or DVD player with HDMI or DVI output).

The HDMI input is designed for best performance with 1080i high-definition video signals, but will also accept and display 480i, 480p, and 720p signals.



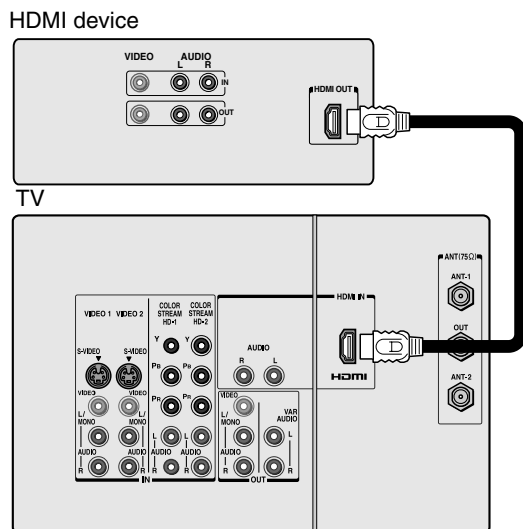
NOTE: NEVER CONNECT THIS TV TO A PERSONAL COMPUTER (PC).
THIS TV IS NOT INTENDED FOR USE WITH A PC.

To connect an HDMI device, you will need:

- one HDMI cable (type A connector)

For proper operation, it is recommended that you use a short HDMI cable. You should not encounter difficulty if you use an HDMI cable shorter than 16.4 ft (5m).

HDMI cable transfers both video and audio. Separate analog audio cables are not required (see illustration below). Some CDs (video CDs) may not output digital audio signals. In that case, you may hear sound by connecting analog audio cables. However, if you connect analog audio cables with this connection, the HDMI terminal on the TV will not receive the HDMI digital audio signal and you will hear analog audio only.



^[1] HDMI = High-Definition Multimedia Interface.

^[2] DVI = Digital Video Interface.

^[3] HDCP = High-bandwidth Digital Content Protection.

^[4] EIA/CEA-861/861B compliance covers the transmission of uncompressed digital video with high-bandwidth digital content protection, which is being standardized for reception of high-definition video signals. **Because this is an evolving technology, it is possible that some devices may not operate properly with the TV.**

To ensure that the HDMI or DVI device is reset properly, it is recommended that you follow these procedures:

- When turning on your electronic components, **turn on the TV first**, and then the HDMI or DVI device.
- When turning off your electronic components, **turn off the HDMI or DVI device first**, and then the TV.

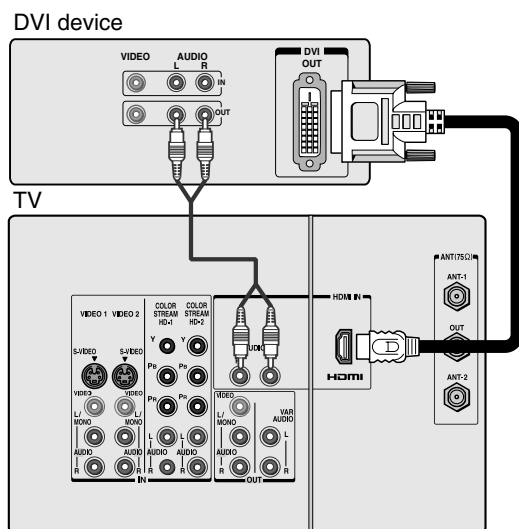
To connect a DVI device, you will need:

- one HDMI-to-DVI adapter cable (HDMI type A connector)

For proper operation, the length of an HDMI-to-DVI adapter cable should not exceed 9.8 ft (3m). The recommended length is 6.6 ft (2m).

- one pair of standard analog audio cables

An HDMI-to-DVI adapter cable transfers video only. Separate analog audio cables are required (see illustration below).



Connecting an audio system

This connection allows you to use an audio amplifier and external speakers and adjust the audio level using the TV's remote control.

To control the audio, turn on the TV and the stereo amplifier, and turn off the built-in speakers (see “Turning off the built-in speakers” on page 57).

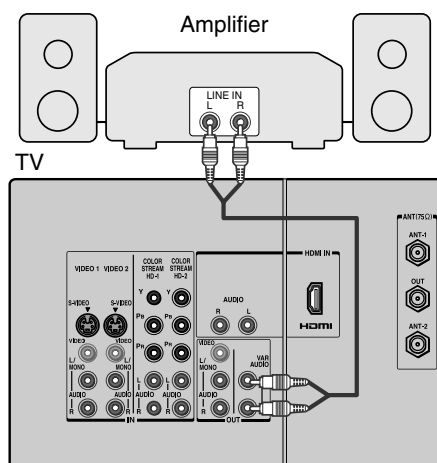
You will need:

- one pair of standard audio cables

Note:

To hear sound when using an external audio amplifier, the volume of both the TV and the amplifier must be set above 0 (zero).

For example, if the volume of the TV is set to 0, you will not be able to hear any sound, even the volume of the amplifier is at its highest level.



Using the remote control

Preparing the remote control for use

Your TV remote control can operate your TV and most cable converter boxes, satellite receivers, VCRs, DVD players, and HTIBs (home theater in a box), even if they are different brands.

If you have a Toshiba device:

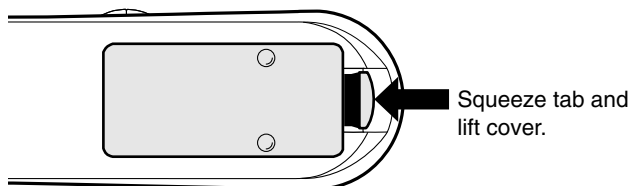
Your TV remote control is preprogrammed to operate most Toshiba devices. See pages 20–21.

If you have a non-Toshiba device or a Toshiba device that the remote control is not preprogrammed to operate:

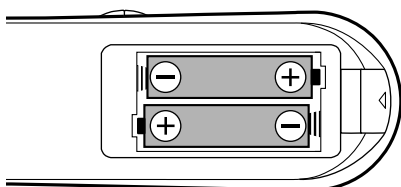
You can program the TV remote control so it will operate the other device. See pages 18–21.

Installing the remote control batteries

1. Remove the battery cover from the back of the remote control.



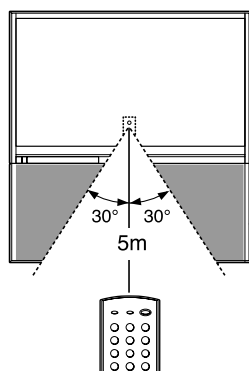
2. Install two "AA" size batteries, making sure to match the + and – signs on the batteries to the signs on the battery compartment.



3. Reinsert the battery cover in the remote control until the tab snaps.

Remote control effective range

For optimum performance, aim the remote control directly at the TV and make sure there is no obstruction between the remote control and the TV.



Note:

- Your TV's remote control may not operate certain features on your VCR, cable TV converter, or other electronic device.
- Refer to the owner's manuals for your other devices to determine their available features. If your TV's remote control does not operate a specific feature on a device, use the remote control that came with the device.

Caution:

- Never throw batteries into a fire.

Note:

- Be sure to use AA size batteries.
- Dispose of batteries in a designated disposal area.
- Batteries should always be disposed of with the environment in mind. Always dispose of batteries in accordance with applicable laws and regulations.
- If the remote control does not operate correctly, or if the operating range becomes reduced, replace batteries with new ones.
- When necessary to replace batteries in the remote control, always replace both batteries with new ones. Never mix battery types or use new and used batteries in combination.
- Always remove the batteries from the remote control if they are dead or if the remote control is not to be used for an extended period of time. This will prevent battery acid from leaking into the battery compartment.

Programming the remote control to operate a cable converter box, satellite receiver, VCR, DVD player, or HTIB (home theater in a box)

Your Toshiba TV remote control is preprogrammed to operate most Toshiba devices. To program your TV remote control to operate a non-Toshiba device (or a Toshiba device that it is not preprogrammed to operate), follow the steps below. For details on using the remote control to operate the device, see pages 20–21.

1. In the remote control code table (below and on the next page), find the code for your device. If more than one code is listed, try each one separately until you find one that works.
2. Set the Device Switch to the type of device you are programming the remote control to operate — **CBL/SAT** (for a cable converter box or satellite receiver), **VCR** (for a VCR or TV/VCR combo), or **DVD** (for a DVD player or HTIB [home theater in a box]).
3. While holding down **RECALL**, press the **Channel Number** buttons to enter the 3-digit code for your device.
4. To test the code, turn on the device, point the remote control at it, and press **POWER**. *See notes at right.*
 - If the correct code was entered, the device will turn off.
 - If the device does not respond, repeat steps 1 – 4 using another code.
 - If the device does not respond to another code, you will need to use the remote control that came with the device.
5. Remember to set the **Device Switch** back to **TV** to control the TV.
6. For future reference, write down the code(s) you used:

DEVICE	CODE	DEVICE	CODE

Remote control codes

In some cases you may not be able to operate your device with the TV remote control. Your other device may use a code that is not recognized by the TV remote control. If this happens, use the device's remote control.

Cable converter box

ABC: 061, 062, 063,
082, 084, 087, 091,
092, 096, 098
Archer: 065, 092, 097,
099
Cableview: 064, 094
Century: 092
Citizen: 090, 092, 097
Contec: 083, 085, 086,
088, 093, 098
Diamond: 093
Eagle: 091
GE: 061, 062
Gemini: 069, 070, 094
General Instruments:
062, 089, 096

Hamlin: 093
Hitachi: 062, 095, 096
Jasco: 097
Jerrold: 062, 069, 071,
082, 086, 089, 091,
096
Magnavox: 072, 096
Memorex: 091, 092, 104
Multi Canal: 090
Novavision: 101
Panasonic: 081, 083, 085
Philco: 087
Philips: 066, 067, 068,
070, 072, 073, 074,
075, 091, 092
Pioneer: 076, 077
Proscan: 061, 062
Radio Shack: 092, 097,
099

RCA: 064, 081
Realistic: 065
Recoton: 102
Samsung: 077, 090
Scientific Atlanta: 063,
078, 079, 080, 088,
098, 101, 105
Sears: 095
Signature: 062
Signature 2000: 096
Sprucer: 081, 085
Starcom: 069, 082, 087,
096, 103, 104
Stargate: 069, 090
Sylvania: 095, 100
TeleView: 090
Texscan: 100
Tocom: 071, 084, 085

U. S. Electronics: 087,
096, 098
United Cable: 082
Universal: 065, 092, 097,
099, 102, 103
Wards: 096

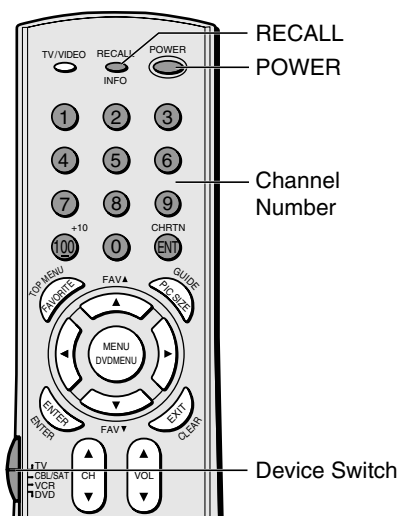
010, 011, 012, 022,
023, 031, 049

Hitachi: 033
Hughes: 033
Hughes Network
Systems: 019

Intersat: 048
Jancil: 027
JVC: 017, 057
Kenwood: 029
Magnavox: 060
Optimus: 058
Pansat: 036, 052
Primostar: 015, 042
Proscan: 008, 009, 013
Radio Shack: 022, 023,
030

Satellite receiver

Alphastar: 038, 059
Chaparral: 034
DISH Network: 057
Drake: 020, 040, 044,
046, 050, 053
Echostar: 018, 041, 051
Express Vu: 057
Fujitsu: 027
GE: 008, 009, 013
General Instruments:



Note:

- In addition to **POWER**, confirm that all necessary keys on the TV remote control operate your device. If some keys are not operational, repeat the device code setup using another code (if other codes are listed for your device). If, after trying all listed codes, the necessary keys do not operate your device, use the device's original remote control.
- Every time you change the batteries, you will need to reprogram the remote control.
- Some newer VCRs respond to either of two codes. These VCRs have a switch labeled "VCR1/VCR2." If your VCR has this kind of switch and does not respond to the codes for your VCR brand, set the switch to the other position ("VCR1" or "VCR2") and reprogram the remote control.

Remote control codes (cont.)

Satellite receiver (cont.)

RCA: 008, 009, 013, 016
Realistic: 030
Samsung: 059
Sony: 014, 055
Star Choice: 057
Star Trak: 025, 026, 037, 054
STS: 024
Toshiba: 000, 001, 002, 003, 004, 005, 006, 007, 020, 031, 056
Uniden: 021, 028, 030, 032, 035, 039, 043, 045, 047, 058
Zenith: 027

TV/VCR Combo

Action: 078
GE: 059, 062
Goldstar: 065
Panasonic: 065
Precision: 078
Quasar: 065
Realistic: 079
Sony: 074
Toshiba: 057
Totevision: 009, 010, 065
Zenith: 065

DVD/VCR Combo

Go Video:
DVD=087, VCR=081
JVC:
DVD=088, VCR=082
RCA:
DVD=089, VCR=083
Samsung:
DVD=090, VCR=084
Sanyo:
DVD=091, VCR=085
Zenith:
DVD=092, VCR=086

DVD player

Aiwa: 006, 015
Apex: 016, 017
BOSE: 097
Broksonic: 018
Clarion: 019
Classic: 020
Daewoo: 021
Denon: 022, 023, 024, 025
Emerson: 026, 027
Fisher: 028
Funai: 027
GE: 001, 029, 030
Go Video: 087
GPX: 031

Hitachi: 005, 032, 033, 034, 035
JVC: 003, 007, 036, 042, 088
Kenwood: 037
Konka: 008, 009
Magnavox: 004, 038
Memorex: 039
Mintek: 040
NAD: 026
Nakamichi: 041
Norcent: 043
Onkyo: 044
Oritron: 058
Panasonic: 010, 045, 046, 047, 048, 049, 050
Philips: 004, 051
Pioneer: 052, 053, 054, 055
Proscan: 001, 056
Qwestar: 057, 058
RCA: 001, 002, 059, 089
Sampo: 060
Samsung: 061, 062, 086, 090
Sansui: 073
Sanyo: 063, 091
Sharp: 064, 067
Sherwood: 074
Sony: 011, 012, 065, 066, 068, 069, 070
Sylvania: 027
Teac: 071
Technics: 072
Techwood: 075
Toshiba: 000, 013, 076, 077, 078
Yamaha: 079, 080, 081
Zenith: 014, 082, 092

Portable DVD player

Aiwa: 093
Audiovox: 094, 095
Panasonic: 024, 096, 099
RCA: 098

VCR

Admiral: 049
Aiko: 019
Aiwa: 018
Akai: 003, 004, 037, 038, 039, 058, 069
Audiovox: 010
Bell & Howell: 007, 068
Broksonic: 008, 017
Calix: 010
Carver: 026
CCE: 019
Citizen: 009, 010, 011, 012, 013, 014, 015, 019, 057, 073

Colortyme: 005
Craig: 009, 010, 016, 061, 065, 079
Curtis Mathes: 001, 005, 009, 012, 014, 040, 048, 053, 056, 057
Daewoo: 011, 013, 015, 017, 018, 019, 057, 078
Daytron: 078
Denon: 063
Dimensia: 001, 048
Electrohome: 010, 020, 065
Emerson: 003, 008, 010, 011, 017, 018, 020, 028, 039, 054, 057, 062, 065, 068, 072
Fisher: 007, 016, 021, 022, 023, 057, 064, 068, 070, 071, 079
Fuji: 004, 041
Funai: 018, 073
Garrard: 018
GE: 001, 002, 009, 040, 042, 048, 056
Go Video: 056, 059, 061, 081
Goldstar: 005, 010, 014, 054, 056, 065, 067
Gradiente: 018, 065
Harman Kardon: 005
Hitachi: 024, 025, 035, 037, 042, 063, 070, 080
JBL: 076
JC Penney: 005, 006, 007, 008, 009, 010, 023, 024, 025, 026, 035, 056, 061, 063, 065
Jensen: 024, 025, 037, 050
JVC: 005, 006, 007, 014, 037, 043, 062, 063, 068, 082
Kenwood: 005, 006, 007, 012, 014, 037, 043, 053, 068, 071
Kodak: 010
LG: 010
Lloyds: 053, 073, 079
Logik: 061
LXI: 010
Magnasonic: 061, 065, 078
Magnavox: 026, 027, 034, 044, 057, 061, 072
Marantz: 005, 006, 007, 012, 014, 026, 053, 067

Memorex: 007, 009, 010, 016, 018, 034, 049, 063, 065, 066, 068, 075, 079
MGA: 020, 028, 039
MGN: 056
Minolta: 024, 025, 035, 063
Mitsubishi: 020, 024, 025, 028, 039, 043, 065
Montgomery Ward: 049
Motorola: 049
MTC: 009, 046, 061
Multitech: 009, 012, 018
NEC: 005, 006, 007, 012, 014, 037, 043, 053, 054, 067, 070
Nikko: 010
Noblex: 009
Optimus: 010, 049, 065
Optonica: 031
Orion: 054, 057, 062, 065, 068, 072
Panasonic: 036, 045, 046, 057, 061, 072, 079
Pentax: 012, 024, 025, 035, 042, 053, 063
Pentex Research: 014
Philco: 026, 027, 063
Philips: 026, 031, 044, 057
Pioneer: 006, 024, 043, 055
Portland: 012, 013, 015
Proscan: 001, 002, 048
Proton: 061
Quasar: 045
Radio Shack: 010, 031, 065
Radio Shack/Realistic: 007, 009, 010, 016, 018, 020, 021, 022, 031, 049
Radix: 010
RCA: 001, 002, 003, 009, 024, 025, 029, 035, 040, 042, 045, 048, 055, 056, 063, 071, 083
Realistic: 007, 009, 010, 011, 016, 018, 020, 021, 022, 031, 049, 051, 056, 060, 065, 075, 079
Ricoh: 047
Runco: 034
Samsung: 009, 011, 038, 056, 073, 084
Sansui: 006, 037, 043, 061

Sanyo: 007, 009, 016, 054, 064, 068, 071, 075, 079, 085
Scott: 008, 011, 017, 028, 030, 057, 065, 072
Sears: 007, 010, 016, 021, 022, 023, 024, 025, 035, 053, 057, 063, 064, 065, 068, 071, 075, 079
Sharp: 013, 020, 031, 049, 051, 060, 066
Shintom: 004, 025, 032, 061
Signature: 049
Signature 2000: 075
Singer: 047, 061
Sony: 004, 032, 033, 041, 052, 058, 070, 074, 076, 077, 080
STS: 035
Sylvania: 018, 026, 027, 028, 044, 072
Symphonic: 018, 051, 053, 073, 079
Tandy: 007
Tashiko: 010
Tatung: 037
Teac: 018, 029, 037
Technics: 036
Teknika: 010, 018, 065
Toshiba: 000, 011, 021, 023, 024, 028, 030, 039, 057, 074, 078, 079
Totevision: 009, 010, 065
Unitec: 073
Unitech: 009
Vector Research: 005, 006, 011, 012, 053
Video Concepts: 005, 006, 011, 012, 039, 053
Wards: 009, 010, 011, 016, 018, 020, 024, 025, 031, 035, 049, 051, 056, 057, 060, 065, 066, 079
White Westinghouse: 073
XR-1000: 018
Yamaha: 005, 006, 007, 014, 037, 053
Zenith: 004, 032, 034, 041, 047, 069, 086

HTIB

Lasonic: 083
Panasonic: 084
Venturer: 085

Using the remote control to operate a cable converter box, satellite receiver, VCR, DVD player, or HTIB (home theater in a box)

If you have a non-Toshiba device or a Toshiba device that the remote control is not preprogrammed to operate, you must first program the remote control to recognize the device (if you have not already done so). See pages 18 and 19.

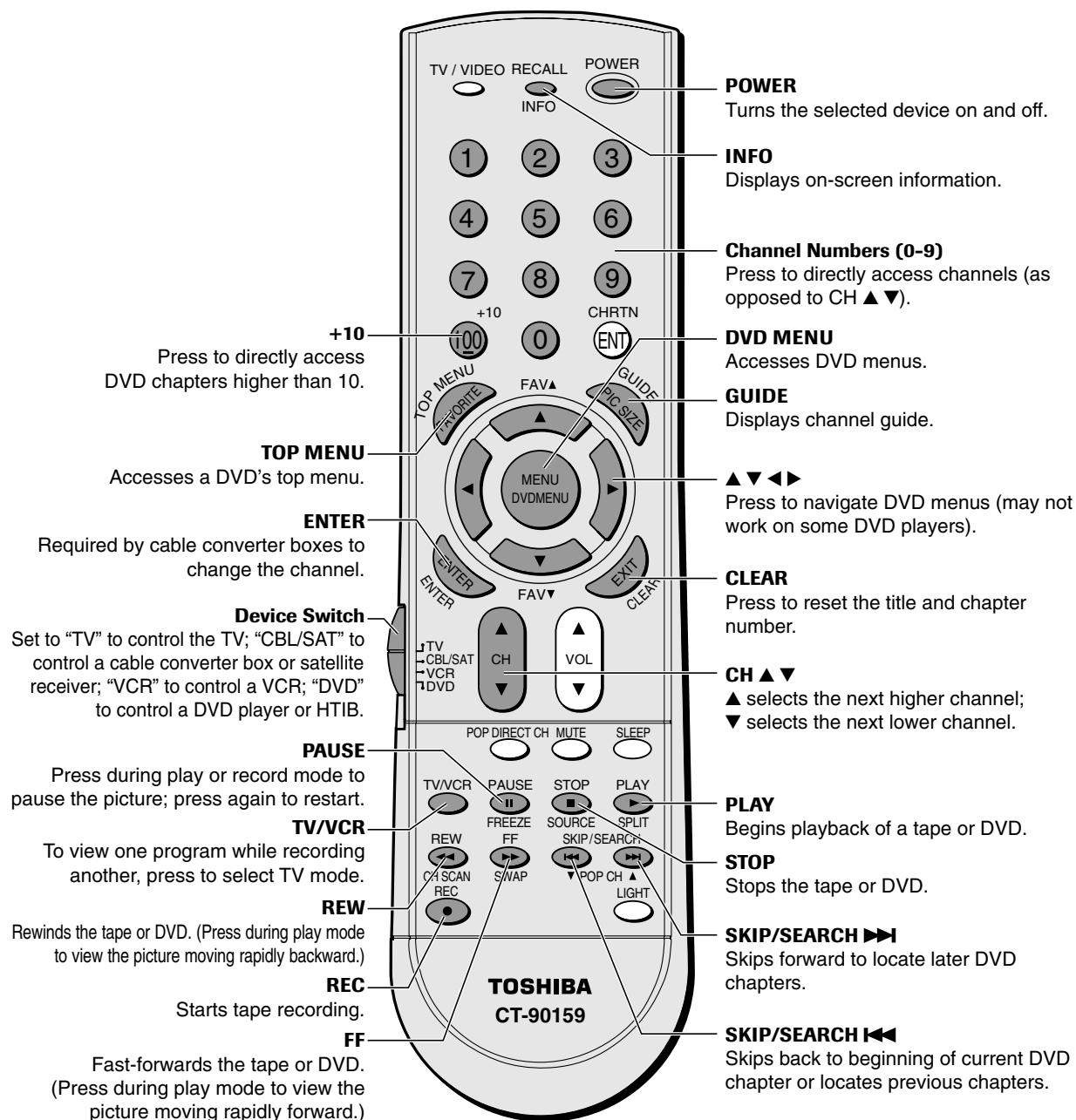
To use your TV remote control to operate a:

- cable converter box or satellite receiver, set the **Device Switch** to CBL/SAT.
- VCR, set the **Device Switch** to VCR.
- DVD player or HTIB, set the **Device Switch** to DVD.

Note:

Even after the TV remote control is programmed, it may not operate certain features on your other device. If this happens and you wish to use those features, you will need to use the device's original remote control.

Point the remote control directly at the device.



Remote Control function key chart

Key Label	Toshiba TV	Cable/Satellite	VCR	DVD
POWER	Power	Power	Power	Power
TV/VIDEO	Input	TV Input	TV Input	TV Input
RECALL/INFO	On-screen display	INFO	---	On-screen display
1	Digit 1	Digit 1	Digit 1	Digit 1
2	Digit 2	Digit 2	Digit 2	Digit 2
3	Digit 3	Digit 3	Digit 3	Digit 3
4	Digit 4	Digit 4	Digit 4	Digit 4
5	Digit 5	Digit 5	Digit 5	Digit 5
6	Digit 6	Digit 6	Digit 6	Digit 6
7	Digit 7	Digit 7	Digit 7	Digit 7
8	Digit 8	Digit 8	Digit 8	Digit 8
9	Digit 9	Digit 9	Digit 9	Digit 9
0	Digit 0	Digit 0	Digit 0	Digit 0
100/-/+10	100	100/-	100	+10
CH RTN/ENT	Previous channel	CH Enter	CH Enter	---
TOP MENU/ FAVORITE	Favorites	---	---	Top Menu
GUIDE/ PIC SIZE	Selects the image shape.	Guide	---	---
ENTER/ENTER	Enter	Select	---	Enter
CLEAR/EXIT	Exit	Exit	---	Clear
▲▼/FAV▲▼	Menu select/ FAV▲▼	Menu select	---	Menu select
◀▶	Menu select	Menu select	---	Menu select
VOL▲▼	Volume up/down	TV Volume up/down	TV Volume up/down	TV Volume up/down
CH▲▼	Channel up/down	Channel up/down	Channel up/down	---
SLEEP	Sleep timer	---	---	---
MUTE	Sound mute	TV Sound mute	TV Sound mute	TV Sound mute
POP DIRECT CH	POP Direct ch	---	---	---
PLAY/SPLIT	POP Split	---	Play	Play
STOP/SOUCE	POP Source	---	Stop	Stop
PAUSE/FREEZE	Still picture	---	Pause	Pause
TV/VCR	---	---	TV/VCR	---
SKIP/SEARCH/ POP CH ▲▼	POP channel up/down	---	Search- +	Skip FWD/REV
FF/SWAP	POP Swap	---	Fast FWD	Fast FWD
REW/CH SCAN	Ch scan	---	Rewind	Rewind
REC	---	---	Record	---
LIGHT	Lights the remote key, and toggles between enabled and disabled Illumination mode.			

Note:

“---” will send nothing.

Learning about the remote control

The buttons used for operating the TV only are described here.

POWER turns the TV on and off

RECALL displays screen information (page 58)

SLEEP sets the TV to turn off at a specific time (page 52)

TV/VIDEO selects video input source (page 50)

MUTE mutes the sound (page 54)

Device Switch switches between TV, CBL/SAT, VCR, and DVD (pages 18-20)
Set to "TV" to control the TV.

CH (channel) ▲ ▼ cycles through programmed channels (page 26)

Channel Numbers (0-9, 100) allow direct access to channels (page 26)

VOL (volume) ▲ ▼ adjusts the volume level

CH RTN returns to the memorized channel (page 29)

MENU allows access to on-screen programming menus (page 23)

ENTER activates the function settings in the menu (page 23)

▲ ▼ ◀ ▶ select or adjust programming menus (page 23)

POP CH ▲ ▼ selects the POP (picture-out-picture) channel (page 36)

FAV ▲ ▼ cycles through favorite channels (page 30)

FAVORITE allows access to the favorite channel search function (page 39)

PIC SIZE cycles through the five picture sizes: Natural, TheaterWide 1, 2, 3, and Full (page 32)

EXIT exits programming menus (page 23)

SPLIT turns the POP feature on and off (page 36)

SOURCE selects the POP picture source (page 36)

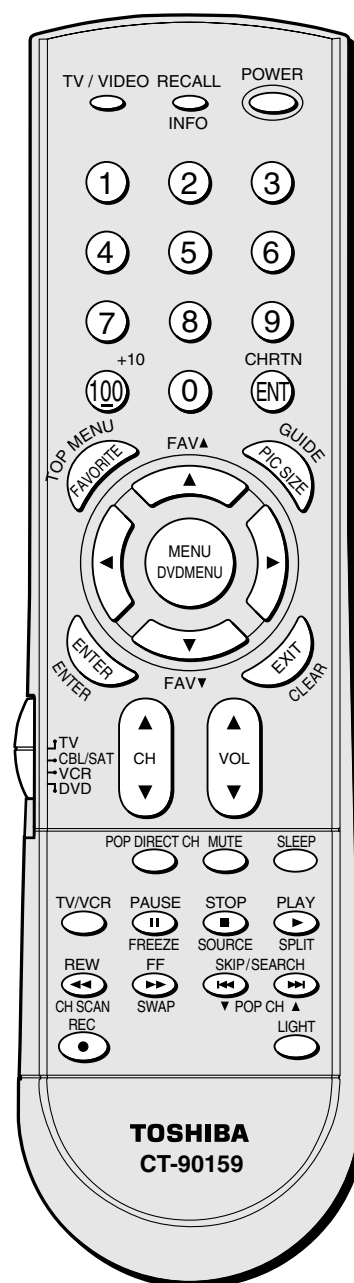
FREEZE freezes the picture. Press again to restore the moving picture.

SWAP switches the main and POP pictures (page 37)

POP DIRECT CH allows direct access to POP channels (page 36)

CH SCAN allows access to the programmed channel search function (page 38)

LIGHT illuminates the keypad for five seconds



Note:

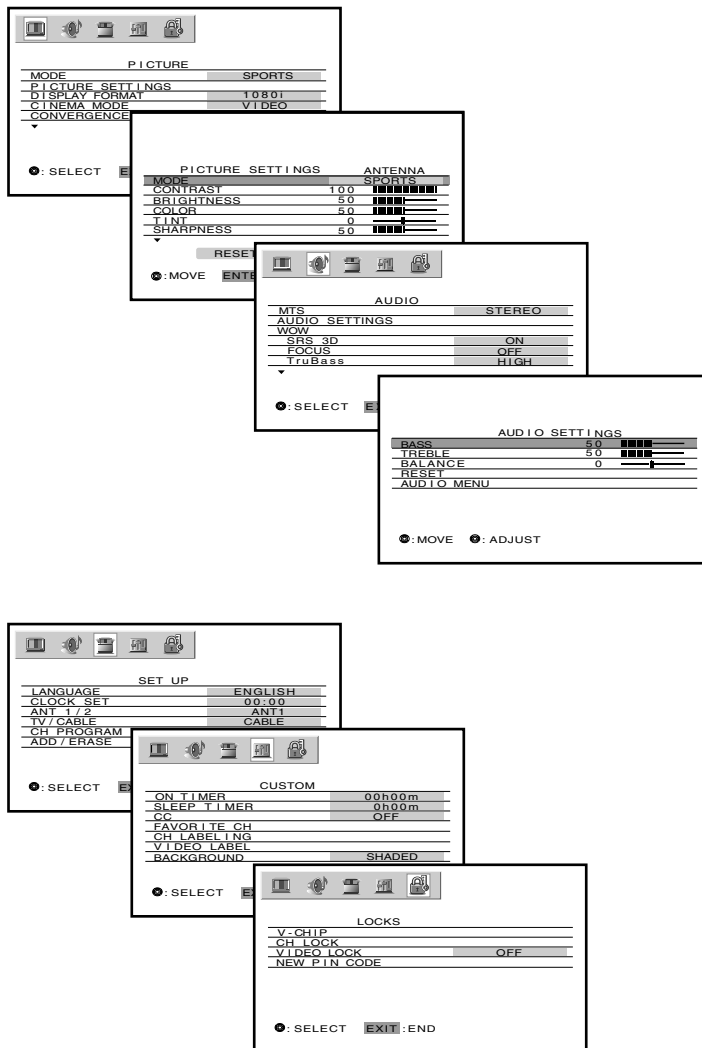
The error message "Not Available" will appear if you press a key for a function that is not available.

Setting up your TV

Learning about the menu system

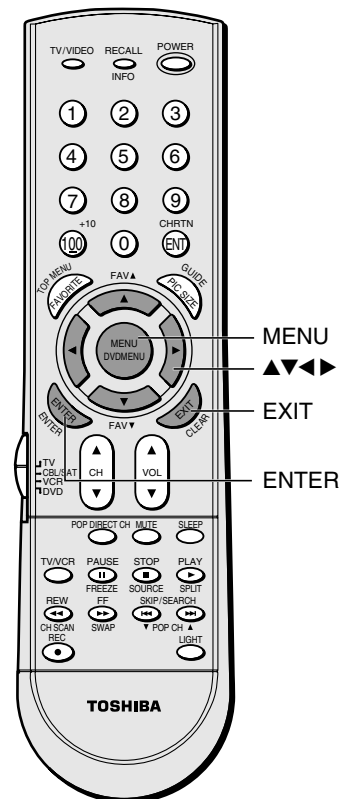
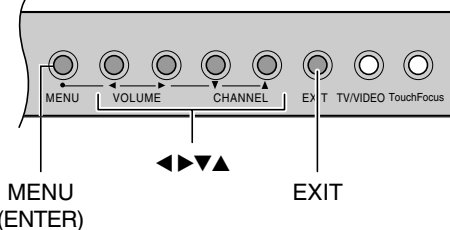
After you have installed the batteries and programmed the remote control, you will need to set some preferences on the TV using the menu system. You can access the menu using the buttons on your TV or remote control.

1. Press MENU to display the menu system.
2. Press ◀ or ▶ to select a menu.
3. Press ▲ or ▼ to select an item, then press ENTER.
4. Press ▲ or ▼ to select or adjust a setting.



- Press ENTER to activate the function settings in the menus.
- The main menu display will disappear automatically if you do not make a selection within 15 seconds. To close an on-screen display instantly, press EXIT.

TV front panel



Note:

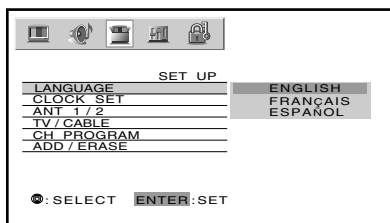
You can change the background of the menu. See page 58 for details.

Changing the on-screen display language

You can choose from three different languages (English, French and Spanish) for the on-screen display of adjustment menus and messages.

To select a language:

1. Press MENU, and then press ◀ or ▶ until the SET UP menu appears.
2. Press ▲ or ▼ to highlight LANGUAGE, and then press ENTER to display the pull-down menu.



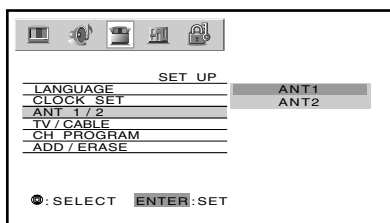
3. Press ▲ or ▼ to highlight your desired language.

Selecting the antenna input

You can connect to two different antenna input sources (ANT 1 or ANT 2).

To select the antenna input using the menu system:

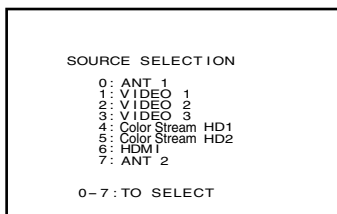
1. Press MENU, and then press ◀ or ▶ until the SET UP menu appears.
2. Press ▲ or ▼ to highlight ANT 1/2, and then press ENTER to display the pull-down menu.



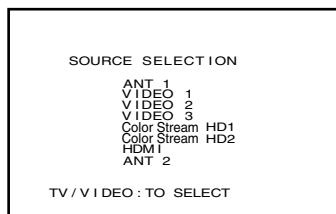
3. Press ▲ or ▼ to highlight either ANT 1 or ANT 2, depending on the antenna terminal you wish to use.

To select the antenna input using the TV/VIDEO button:

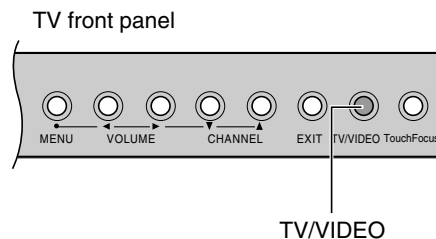
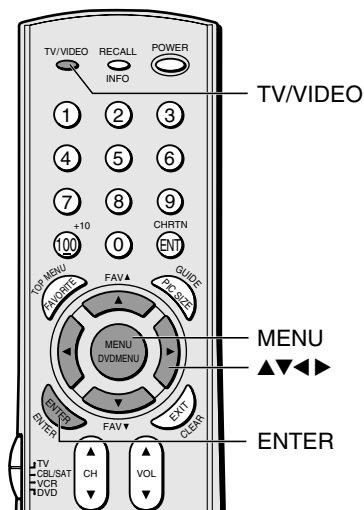
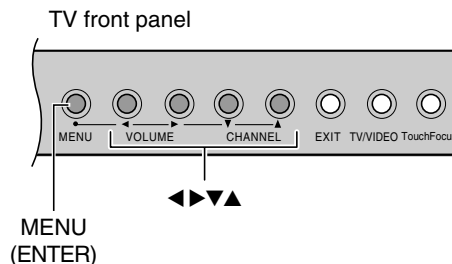
1. Press the TV/VIDEO button on the remote control or TV (see illustrations below). The current signal source displays in purple.
2. Continue pressing the TV/VIDEO button to select ANT 1 or ANT 2.



Pressing TV/VIDEO on the remote control displays the current signal source (press TV/VIDEO again or 0-7 to change)



Pressing TV/VIDEO on the TV changes the current signal source



Please note the following regarding the HDMI source selection:

Never connect this TV to a personal computer (PC). This TV is not intended for use with a PC. See "Connecting a device to the HDMI input" on page 15 for details.

Adding channels to the TV's memory

When you press Channel ▲ or ▼, your TV will stop only on the channels stored in the TV's channel memory.

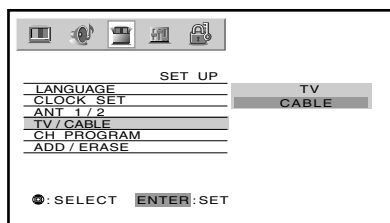
Follow the steps below and on the next page to program all active channels into the TV's memory.

Programming channels automatically

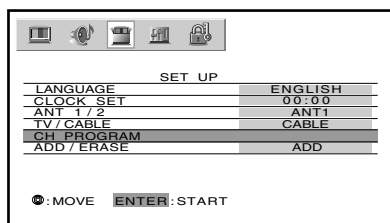
Your TV can automatically detect all active channels in your area and store them in its memory. After the channels are stored automatically, you can manually add or erase individual channels (see page 26).

To program channels automatically:

1. Press MENU, and then press ◀ or ▶ until the SET UP menu appears.
2. Press ▲ or ▼ until the TV/CABLE is highlighted, and then press ENTER to display the pull-down menu.
3. Press ▲ or ▼ to highlight either TV or CABLE, depending on which you use. If you use an antenna, highlight TV; if you use cable, highlight CABLE.



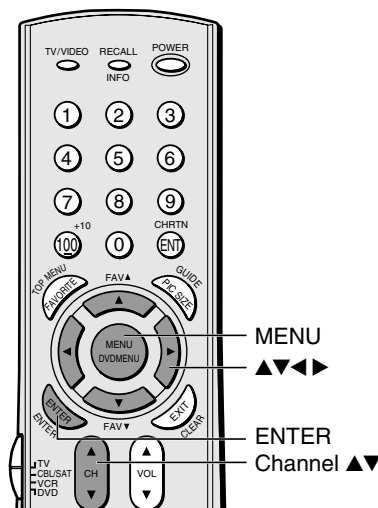
4. Press ENTER.
5. Press ▼ to select CH PROGRAM.



6. Press ENTER to start channel programming. The TV will automatically cycle through all the TV or Cable channels (depending on which you selected), and store all active channels in the channel memory.
While the TV is cycling through the channels, the message "Programming Now—Please Wait" appears.
7. When channel programming is complete, the message "Completed" appears.
8. Press Channel ▲ or ▼ to view the programmed channels.

Note:

To tune the TV to a channel not programmed in the channel memory, you must use the Channel Number buttons on the remote control.

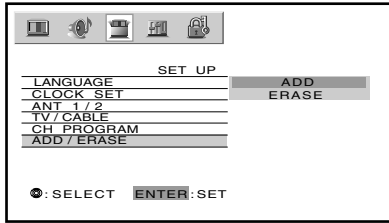


Adding and erasing channels manually

After you have programmed the channels automatically, you can manually add or erase specific channels.

To manually add or erase channels:

1. Select the channel you want to add or erase. If you are adding a channel, you must select the channel using the Channel Number buttons.
2. Press MENU, and then press ◀ or ▶ until the SET UP menu appears.
3. Press ▲ or ▼ to highlight ADD/ERASE, and then press ENTER to display the pull-down menu.



4. Press ▲ or ▼ to select ADD or ERASE, depending on the function you want to perform.
5. Repeat steps 1-4 for other channels you want to add or erase.

Changing channels

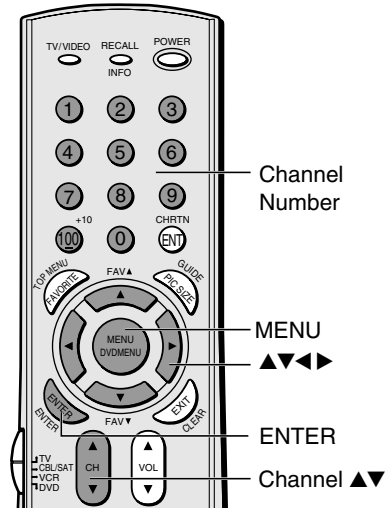
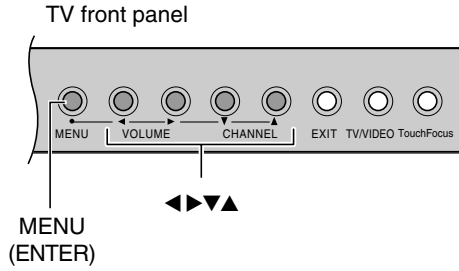
To change to a specific channel (programmed or unprogrammed):

Press the Channel Number buttons (0–9 and 100).

For channels 100 and higher, press the 100 button, and then the next two numbers. For example, to select channel 125, press 100, 2, 5.

To change to the next programmed channel:

Press Channel ▲ or ▼ on the TV or remote control.



Adjusting the color convergence

This projection TV uses three separate TV tubes: red, green, and blue. The red, green, and blue images are projected onto the screen where they converge to form a full-color picture. You can see a clear picture only when the three images converge correctly. Convergence may drift over time or if you move the TV. If you can see clear images on your TV screen, skip this procedure.

It is recommended that the adjustment is made only after the TV has been on for at least 30 minutes.

Automatically adjusting the color convergence using TouchFocus®

Press TouchFocus on the TV once. The TV will enter auto-convergence mode, and adjust convergence automatically.



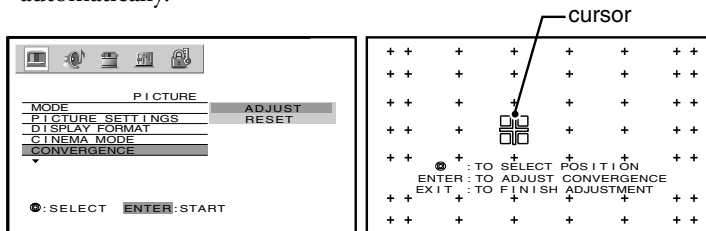
When the adjustment is complete, the normal picture appears.

You can adjust the convergence manually described as follows for more detailed convergence adjustment than by TouchFocus.

Manually adjusting the color convergence

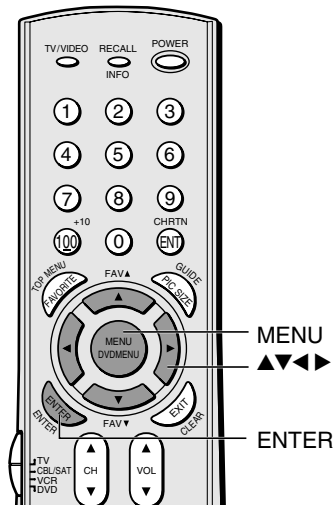
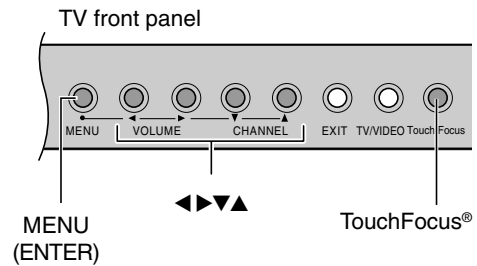
You can use the CONVERGENCE in the PICTURE menu to perform continual auto-convergence (TouchFocus) and manual convergence adjustments.

1. Press MENU, and then press ◀ or ▶ until the PICTURE menu appears.
2. Press ▲ or ▼ to highlight CONVERGENCE, and then press ENTER to display the pull-down menu.
3. Press ▲ or ▼ to highlight ADJUST, and then press ENTER. The TV will perform TouchFocus. When the adjustment is complete, the TV will enter 56-point static convergence mode automatically.



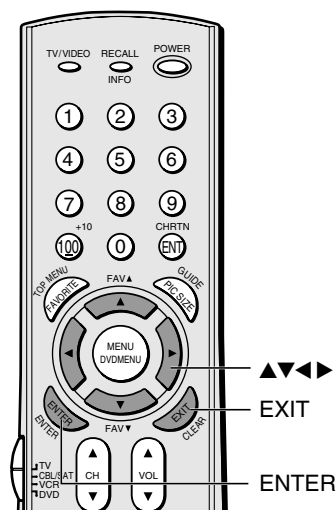
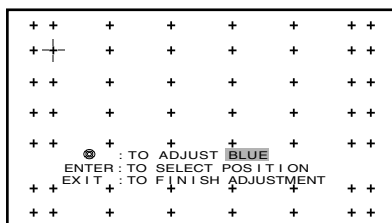
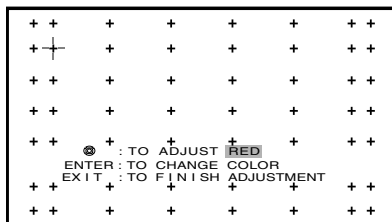
If you see separate red, blue, or green crossed lines (or red or blue shadows next to white lines), you need to adjust the convergence.

4. Press ▲▼◀▶ to move the cursor to the position you want to adjust.
5. Press ENTER repeatedly to select RED or BLUE adjusting mode (red crossed lines or blue crossed lines), depending on which color needs adjusting.



(continued on next page)

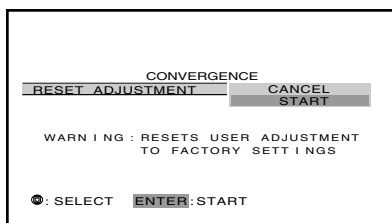
- Press ▲ (up), ▼ (down), ◀ (left), or ▶ (right) on the remote control to converge the red or blue line into the white line.



- If both red and blue need adjusting, you will need to perform steps 5 and 6 twice.
- Press ENTER to display the cursor.
- Repeat steps 4 to 8 to adjust another position.
- Press EXIT to close the Convergence menu.

To reset your adjustments:

- Select RESET in step 3 on page 27, and then press ENTER. The message “WARNING: RESETS USER ADJUSTMENT TO FACTORY SETTINGS” will appear.
- Press ▲ or ▼ to highlight START, and then press ENTER. Your convergence settings have been reset.



Using the TV's features

Adjusting the channel settings

Switching between two channels using Channel Return

The Channel Return feature allows you to switch between two channels without entering an actual channel number each time.

1. Select the first channel (or video mode) you want to view.
2. Select a second channel using the Channel Number buttons (0–9, 100).
3. Press CH RTN. The previous channel will display.

Each time you press CH RTN, the TV will switch back and forth between the last two channels that were selected.

Switching between two channels using SurfLock™

The SurfLock™ feature temporarily “memorizes” one channel in the CH RTN button, so you can return to that channel quickly from any other channel by pressing CH RTN.

To memorize a channel in the CH RTN button:

1. Select the channel you want to program into the CH RTN button.
2. Press and hold CH RTN for about 2 seconds until the message “Channel Memorized” appears on the screen. The channel has been programmed into the CH RTN button.
3. Continue to change channels until your desired channel is selected.
4. Press CH RTN. The memorized channel will be selected.

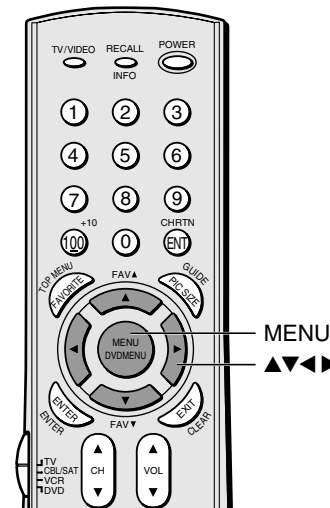
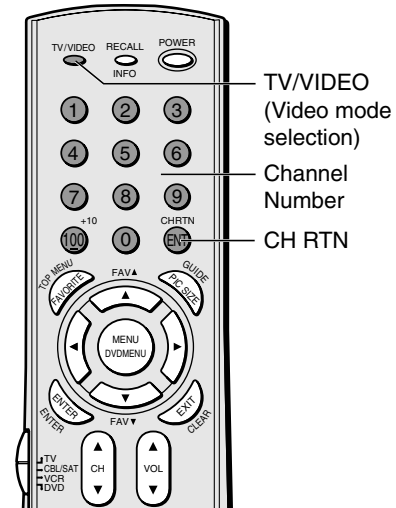
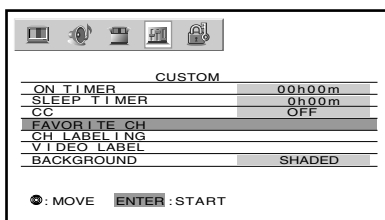
The TV will return to the memorized channel one time only. Once you press CH RTN and then change channels again, the CH RTN button memory will be cleared and the button will function as Channel Return, by switching back and forth between the last two channels that were selected.

Programming your favorite channels

You can preset up to 12 of your favorite channels using the Favorite Channel Programming feature. Because this feature scans through only your favorite channels, it allows you to skip other channels you do not normally watch.

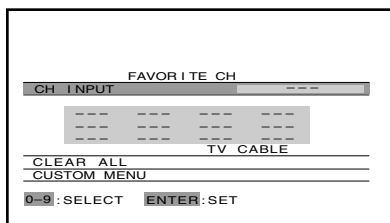
To program your favorite channels:

1. Press MENU, and then press ◀ or ▶ until the CUSTOM menu appears.
2. Press ▲ or ▼ to highlight FAVORITE CH.



(continued on next page)

- Press ENTER to display the FAVORITE CH menu. CH INPUT will be highlighted.



- Press the Channel Number buttons to enter one of your favorite channels.
- Press ENTER.
- Repeat steps 4 and 5 for other channels.

To select your favorite channels:

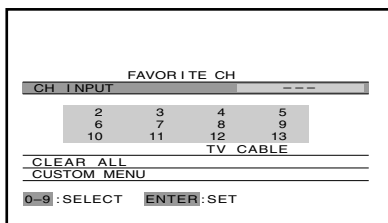
Press FAV ▼ or ▲.

To quickly scan through your favorite channels in a twelve-picture multi-window:

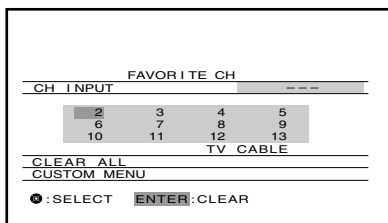
Press FAVORITE (see page 39 for detail).

To clear a favorite channel:

- Press MENU, and then press ◀ or ▶ until the CUSTOM menu appears.
- Press ▲ or ▼ to highlight FAVORITE CH.
- Press ENTER to display the FAVORITE CH menu.



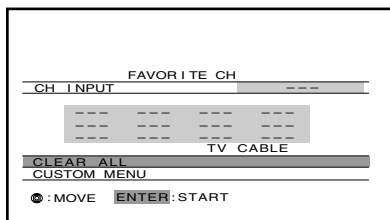
- Press ▲▼◀▶ to highlight the channel you want to clear, then press ENTER.



- Repeat step 4 for other channels.

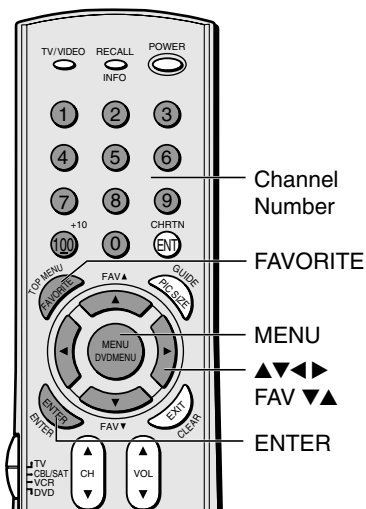
To clear all favorite channels at once:

Press ▲ or ▼ to highlight CLEAR ALL in step 4 above, and then press ENTER to clear all favorite channels at once.



Notes:

- The FAV ▼▲ buttons operate as MENU ▼▲ buttons when a menu is on-screen.
- The favorite channel feature is not available in ANT 2 mode.

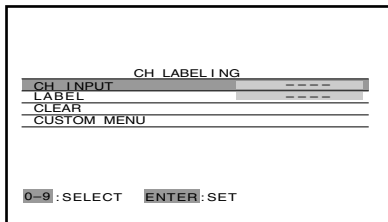


Labeling channels

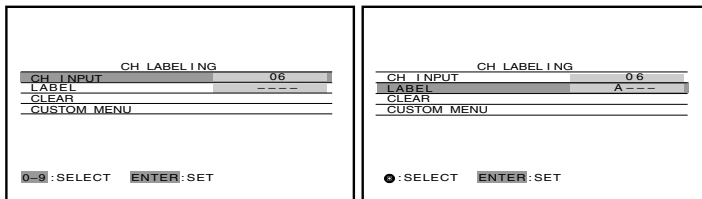
Channel labels appear above the on-screen channel number display each time you turn on the TV, change a channel, or press RECALL. You can choose any four characters to identify a channel.

To create channel labels:

1. Press MENU, and then press ◀ or ▶ until the CUSTOM menu appears.
2. Press ▲ or ▼ to highlight CH LABELING.
3. Press ENTER to display the CH LABELING menu.
CH INPUT will be highlighted.



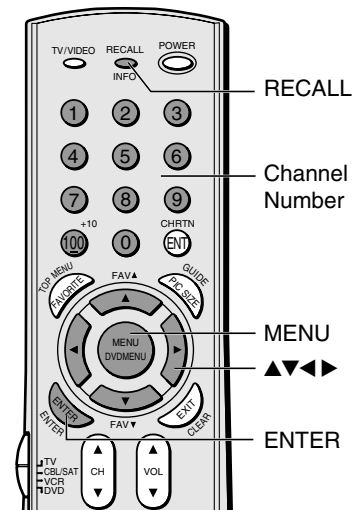
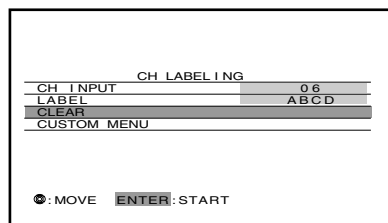
4. Press the Channel Number buttons to select a channel you want to label.
5. Press ▼ to highlight LABEL.
6. Press ◀ or ▶ repeatedly to select a character for the first space, and then press ENTER.



7. Repeat step 6 to enter the rest of the characters.
If you would like a blank space in the label name, you must choose an empty space from the list of characters. Otherwise, a dash “-” will appear in that space.
8. Repeat steps 4–7 for other channels. You can assign labels to a maximum of 32 channels.

To erase channel labels:

1. Press MENU, and then press ◀ or ▶ until the CUSTOM menu appears.
2. Press ▲ or ▼ to highlight CH LABELING.
3. Press ENTER to display the CH LABELING menu.
4. CH INPUT will be highlighted. Select the channel you want to clear with the Channel Number buttons.
5. Press ▼ or ▲ to highlight CLEAR.
6. Press ENTER to erase the channel label.
7. Repeat steps 4–6 to erase other channel labels.



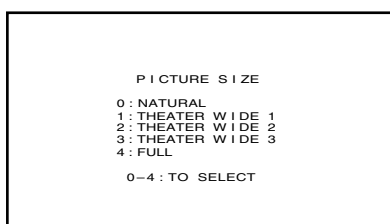
Viewing the wide-screen picture formats (480i, 480p and 1080i signals only)

You can view 480i and 480p format programs in a variety of picture sizes—Natural, TheaterWide 1, TheaterWide 2, TheaterWide 3, and Full. (The Full picture size is not selectable for 1080i format program.)

The way the image displays in any of the picture sizes will vary depending on the format of the program you are viewing. Select the picture size that displays the current program the way that looks best to you. *See “Notice of possible adverse effects on TV picture display,” below right.*

Selecting the picture size

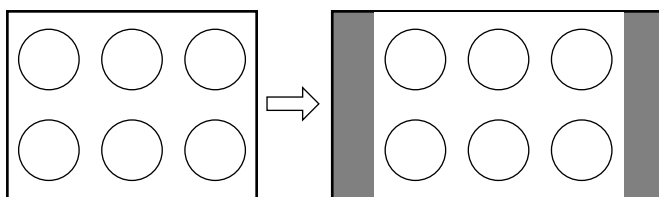
1. Press PIC SIZE on the remote control.
2. Press the corresponding number button (0-4) to select the desired picture size, as described below and on the next page.



Natural picture size

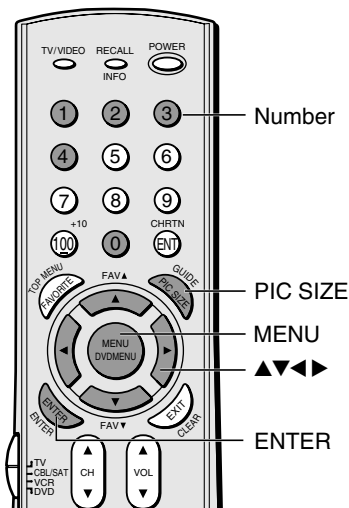
- The image is displayed close to its originally formatted proportion. Some program formats will display with side bars and/or bars at the top and bottom.

Natural picture size example: The way the image displays will vary depending on the format of the program you are currently watching.



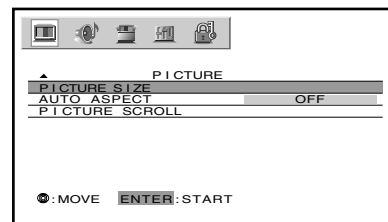
Conventional picture on a conventional TV screen

Conventional picture in Natural size on your wide-screen TV



Note:

You also can change the picture size by selecting PICTURE SIZE in the PICTURE menu.

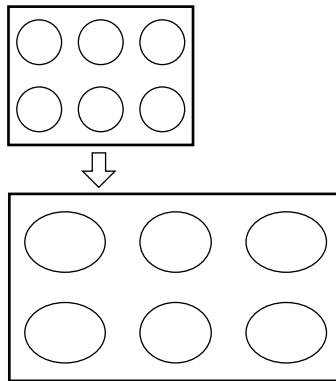


NOTICE OF POSSIBLE ADVERSE EFFECTS ON TV PICTURE DISPLAY

Avoid displaying stationary images on your TV screen for extended periods of time. Fixed (non-moving) patterns or images (including but not limited to PIP/POP windows, closed captions, video game patterns, TV station logos, stock tickers, websites, and special formats that do not use the entire screen) can become permanently ingrained in the cathode ray tube(s) of the TV and cause subtle but permanent ghost images. **This type of damage is NOT COVERED BY YOUR WARRANTY.** See item 33 on page 4 for details.

TheaterWide 1 picture size (For 4:3 format programs)

- The picture is non-uniformly enlarged—the center of the picture remains close to its original proportion, but the left and right edges are stretched wider to fill the screen.
- A small part of the picture at the top and bottom is hidden; however, this mode cannot be scrolled.



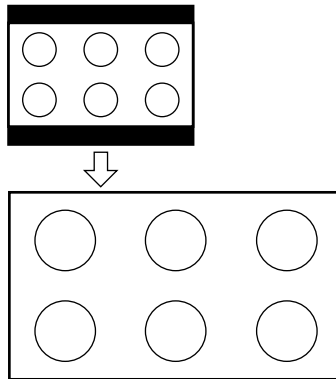
TheaterWide 1 picture size example

Note:

- To select the picture size, press **PIC SIZE** on the remote control or select **PICTURE SIZE** in the **PICTURE** menu.
- The **PICTURE SIZE** feature is not available for some program formats (such as 1080i or 720p). Such formats will display in **Natural** picture size (see page 32).
- If you select **TheaterWide 2** or **3**, the top and bottom edges of the picture may be hidden. To see the hidden edges, either scroll the picture (see page 34) or try viewing the program in **Full** picture size.

TheaterWide 2 picture size (For Letter box programs)

- The entire picture is uniformly enlarged—it is stretched the same amount both wider and taller (retains its original proportion).
- Part of the picture at the top and bottom is hidden. To view the hidden areas, see “Scrolling the TheaterWide® picture” on page 34.



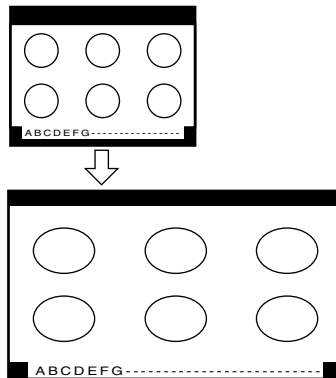
TheaterWide 2 picture size example

NOTICE OF POSSIBLE ADVERSE EFFECTS ON TV PICTURE DISPLAY

Avoid displaying stationary images on your TV screen for extended periods of time. Fixed (non-moving) patterns or images (including but not limited to PIP/POP windows, closed captions, video game patterns, TV station logos, stock tickers, websites, and special formats that do not use the entire screen) can become permanently ingrained in the cathode ray tube(s) of the TV and cause subtle but permanent ghost images. **This type of damage is NOT COVERED BY YOUR WARRANTY.** See item 33 on page 4 for details.

TheaterWide 3 picture size (For Letter box programs with subtitles)

- The picture is non-uniformly enlarged—it is stretched wider to fill the width of the screen, but only slightly stretched taller.
- A small part of the picture at the top and bottom is hidden. To view the hidden areas (such as subtitles or captions), see “Scrolling the TheaterWide® picture” on page 34.



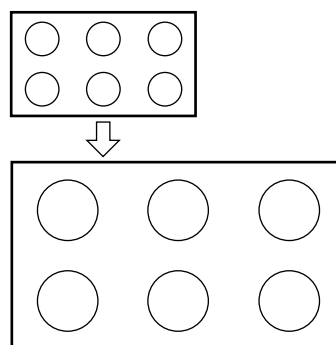
TheaterWide 3 picture size example

Note:

Using these functions to change the picture size (i.e., changing the height/width ratio) for any purpose other than your private viewing may be prohibited under Copyright Law and may subject you to civil and criminal liability.

Full picture size (For 16:9 format programs)

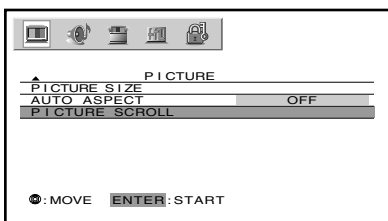
- The picture is non-uniformly enlarged. If you are receiving a 4:3 format program, it is stretched wider to fill the width of the screen, but not stretched taller.
- None of the picture is hidden.



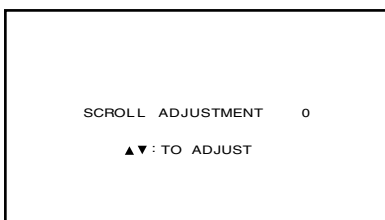
Full picture size example

Scrolling the TheaterWide® picture (TheaterWide 2 and 3 only)

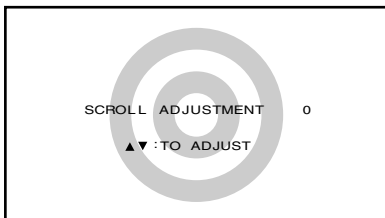
1. Press PIC SIZE to select the TheaterWide 2 or 3 mode.
2. Press MENU, and then press ◀ or ▶ until PICTURE menu appears.
3. Press ▲ or ▼ to highlight PICTURE SCROLL.



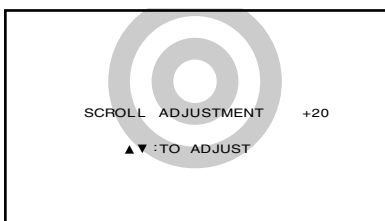
4. Press ENTER to display the Scroll Adjustment mode.



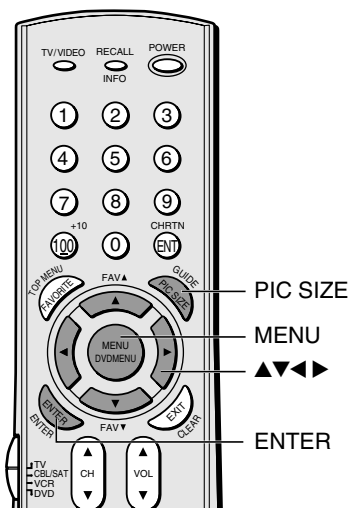
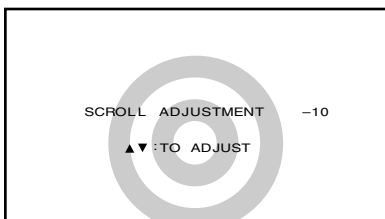
5. Press ▲ or ▼ to adjust the vertical position of the picture.
 - Normal (center) position



- To raise the picture, press ▲.



- To lower the picture, press ▼.



Note:

You can scroll the picture in TheaterWide 2 and TheaterWide 3 only. The scroll amounts are as follows:

- 480i/480p/1080i signal source:
 - TheaterWide 1 : Not adjustable
 - TheaterWide 2 : -10 to +20
 - TheaterWide 3 : -10 to +20

NOTICE OF POSSIBLE ADVERSE EFFECTS ON TV PICTURE DISPLAY

Avoid displaying stationary images on your TV screen for extended periods of time. Fixed (non-moving) patterns or images (including but not limited to PIP/POP windows, closed captions, video game patterns, TV station logos, stock tickers, websites, and special formats that do not use the entire screen) can become permanently ingrained in the cathode ray tube(s) of the TV and cause subtle but permanent ghost images. **This type of damage is NOT COVERED BY YOUR WARRANTY.** See item 33 on page 4 for details.

Using the AUTO ASPECT feature

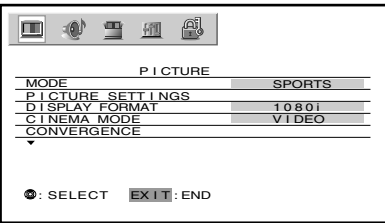
When the AUTO ASPECT feature is set to ON and the TV receives a 480i signal (other than HDMI input source), the picture size is automatically selected (as described in the following table).

Aspect ratio of signal source	Automatic aspect size (automatically selected when AUTO ASPECT is ON)
4:3 Normal	Natural
16:9 Full	Full
4:3 Letter box	Theater wide 2
Not defined (no ID-1 data)	User-set mode

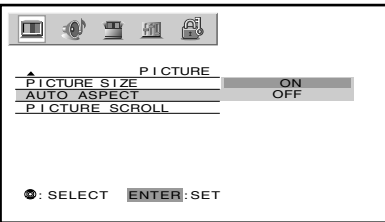
If the signal does not include aspect information, the picture size you selected on pages 32–33 is displayed.

To turn on the AUTO ASPECT feature:

- 1. Press MENU, and then press ◀ or ▶ until the PICTURE menu appears.



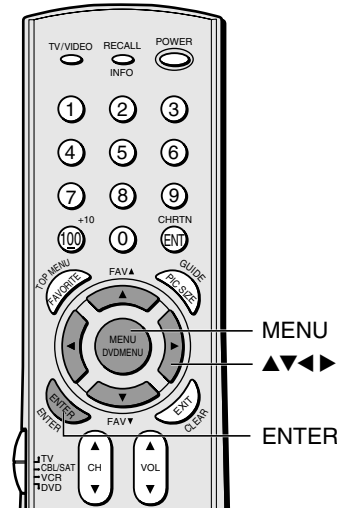
- 2. Press ▲ or ▼ to highlight AUTO ASPECT, and then press ENTER.



- 3. Press ▲ or ▼ to select ON, and then press ENTER.

Note:

- The AUTO ASPECT is also available when viewing HDMI input source of 480i or other format.
- The AUTO ASPECT operates according to aspect information indicated in the digital signal of HDMI (not ID-1 signal).



NOTICE OF POSSIBLE ADVERSE EFFECTS ON TV PICTURE DISPLAY

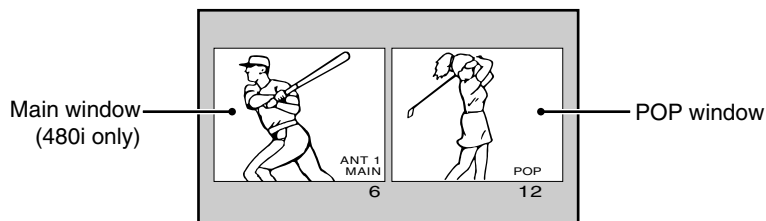
Avoid displaying stationary images on your TV screen for extended periods of time. Fixed (non-moving) patterns or images (including but not limited to PIP/POP windows, closed captions, video game patterns, TV station logos, stock tickers, websites, and special formats that do not use the entire screen) can become permanently ingrained in the cathode ray tube(s) of the TV and cause subtle but permanent ghost images. **This type of damage is NOT COVERED BY YOUR WARRANTY.** See item 33 on page 4 for details.

Using the POP double-window feature

The POP (picture-out-picture) feature splits the screen into a double window that allows you to watch two programs at the same time. The POP program can come from a TV broadcast or an external source, such as a VCR.

To display a TV broadcast in the POP window:

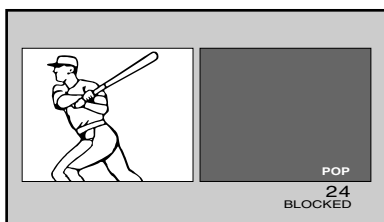
1. Press SPLIT to display the POP window.



2. Select channels of the POP window in the following two ways:

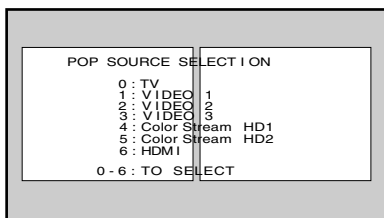
- To change to a specific channels, press POP DIRECT CH. While "POP" is on the screen, press the Channel Number buttons (0-9 and 100).
- To change the next programmed channels, press POP CH ▼▲.

If the V-CHIP feature is active and you try to watch a TV program that exceeds your set rating limits, the program will be blocked (see "Using the V-CHIP menu" on page 40).



To display a picture from an external source in the POP window:

1. Connect the external source equipment (see "Connecting your TV" on page 8).
2. Select the TV program you want to watch in the main window.
3. Press SPLIT to display the POP window.
4. Repeatedly press SOURCE to select the input source for the POP window (VIDEO 1, VIDEO 2, VIDEO 3, ColorStream HD1, ColorStream HD2 or HDMI). The current source will display in purple.
5. You can play a tape as the POP picture, or select a channel for the POP window using the VCR's channel keys.



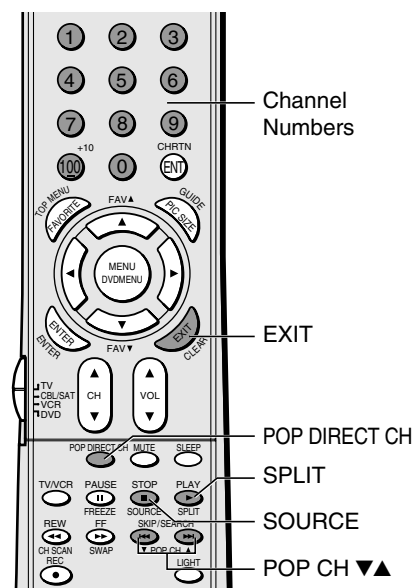
While the above menu is on the screen, you can select the desired signal input source by pressing the corresponding number button (0-6).

To close the POP window:

Press SPLIT again or EXIT.

Note:

- The SPLIT buttons on the remote control operate the TV's POP features.
- You can display only 480i format programs in the Main window.
- You cannot display the ANT-2 signal source in the POP window.
- You can choose to output the sound of either the main or POP program through the AUDIO OUT Jacks (see "Selecting the Audio OUT sound" on page 57).
- You can choose to hear the main or POP audio through the TV speakers (See "Switching the speaker audio (main or POP)" on page 37).
- HDMI, 720p ColorStream, 480p ColorStream, and 1080i ColorStream signals will only display in the POP (right) window. These signals will not display in the main (left) window when the TV is in double-window mode.
- If an HDMI or ColorStream source is being viewed when you open the POP double-window feature, the HDMI or ColorStream source will default to the POP (right) window.

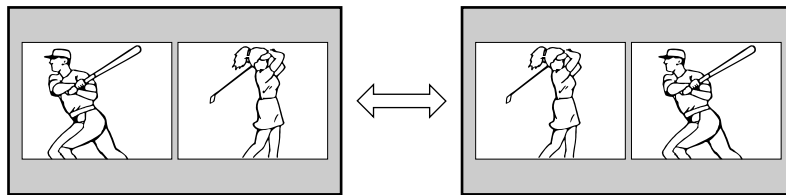


NOTICE OF POSSIBLE ADVERSE EFFECTS ON TV PICTURE DISPLAY

Avoid displaying stationary images on your TV screen for extended periods of time. Fixed (non-moving) patterns or images (including but not limited to PIP/POP windows, closed captions, video game patterns, TV station logos, stock tickers, websites, and special formats that do not use the entire screen) can become permanently ingrained in the cathode ray tube(s) of the TV and cause subtle but permanent ghost images. **This type of damage is NOT COVERED BY YOUR WARRANTY.** See item 33 on page 4 for details.

Switching the main and POP pictures

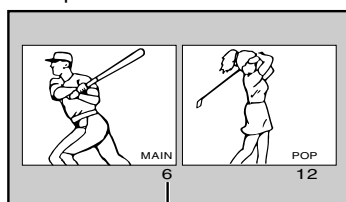
Press SWAP while you are using the POP feature to switch the main and POP pictures.



Switching the speaker sound of main and POP programs

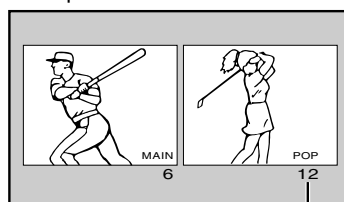
Press ◀ or ▶ while you are using the POP feature to switch the sound (main or POP) from the speakers. The POP sound is monaural only. The selected input source indicator is displayed in purple.

Example: Press ◀



purple

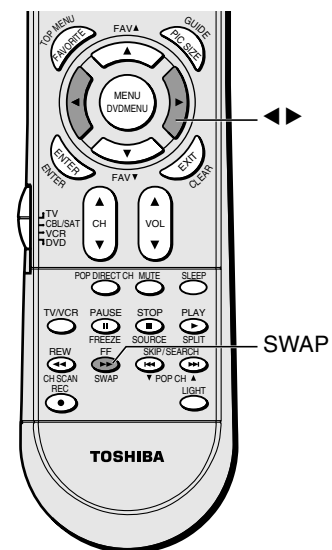
Example: Press ▶



purple

Note:

- If the POP program is not 480i format, it will not display in the main window when you press SWAP.
- The SAP channel will not be decoded when the speaker source is switched to POP. Even if SAP is selected in the menu (see page 54), the main audio channel will be heard when the speaker sound is switched to POP.
- The VARIABLE AUDIO OUT jacks will switch with the speaker sound. However, the source of the regular AUDIO OUT jacks is determined by the AUDIO OUT menu setting (page 57). The regular AUDIO OUT jacks do not switch with the speaker sound.



NOTICE OF POSSIBLE ADVERSE EFFECTS ON TV PICTURE DISPLAY

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Double-Window aspect ratio

The Double-Window feature displays each picture according to its input signal aspect ratio, as illustrated below.

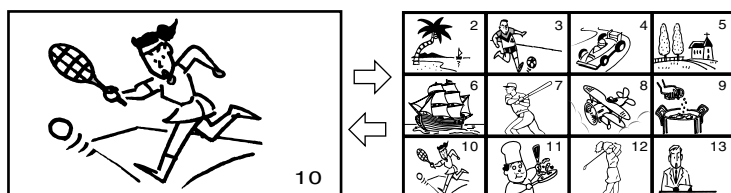


Using the programmed channel search function

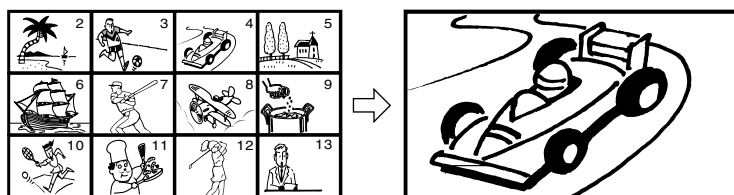
You can use the programmed channel search function to quickly scan the channels you programmed into the TV's memory (page 25).

1. Press CH SCAN.

The TV automatically enters multi-window mode, and begins a twelve-picture scan of your programmed channels. (Press CH SCAN again to return to a normal picture.)

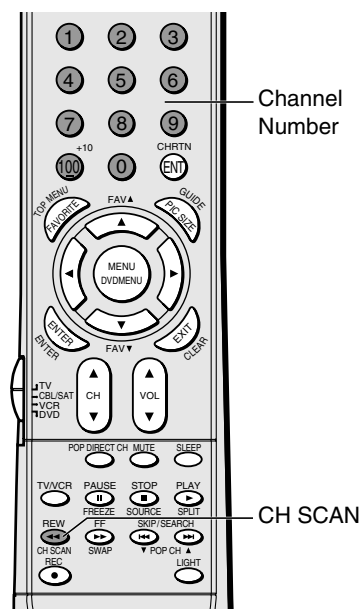


2. Press the Channel Number buttons to select one of the twelve pictures.



Note:

- The AUTO ASPECT feature (page 34) does not operate in double-window mode.
- Aspect ratio is the ratio of width to height of the picture.



Note:

- During the programmed channel search, the multi-window pictures display in 4:3 aspect ratio, regardless of the signal format. The sound is not output.

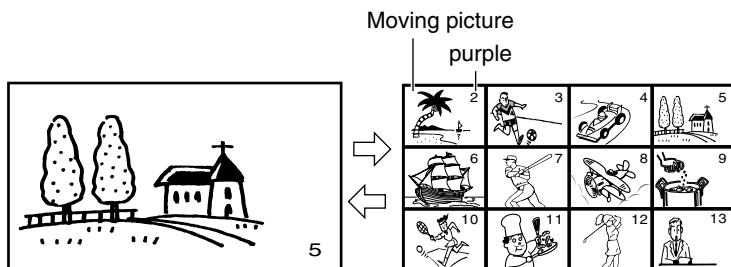
NOTICE OF POSSIBLE ADVERSE EFFECTS ON TV PICTURE DISPLAY

Avoid displaying stationary images on your TV screen for extended periods of time. Fixed (non-moving) patterns or images (including but not limited to PIP/POP windows, closed captions, video game patterns, TV station logos, stock tickers, websites, and special formats that do not use the entire screen) can become permanently ingrained in the cathode ray tube(s) of the TV and cause subtle but permanent ghost images. **This type of damage is NOT COVERED BY YOUR WARRANTY.** See item 33 on page 4 for details.

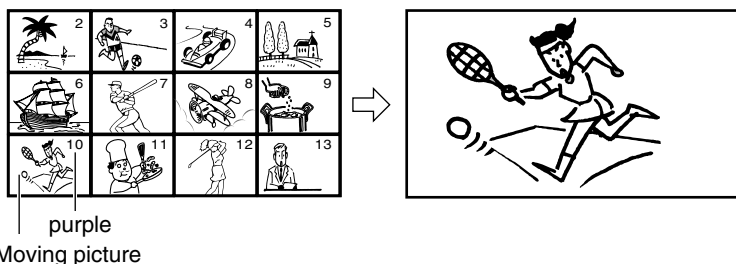
Using the favorite channel search function

You can use the favorite channel search function to quickly scan your favorite channels (see “Programming your favorite channels” on page 29).

1. Press FAVORITE.
The TV automatically enters multi-window mode, and begins a twelve-picture scan of your favorite channels.
(Press FAVORITE again to return to a normal picture.)

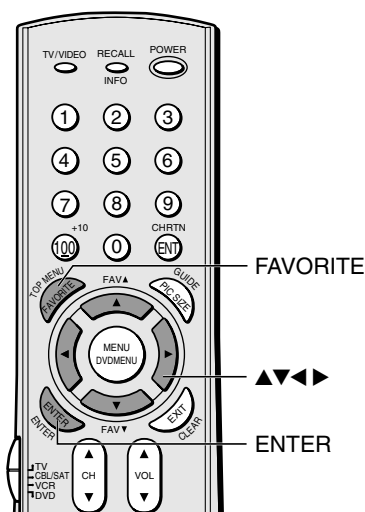
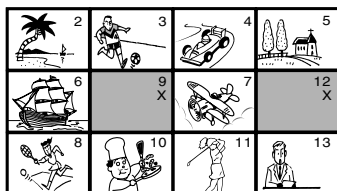


2. Press ▲▼◀▶ to select one of the twelve pictures (becomes a moving picture). The selected channel number is in purple and the monaural sound of the selected channel is output.
3. Press ENTER to display the channel you selected in step 2 as a normal picture.



About the auto favorite feature

If your TV is in the program lock mode, after 4 seconds, the TV starts the auto favorite channel search function. See page 43 for details.



- The favorite channel search function does not operate in HDMI mode.
- The aspect ratio of all main and POP windows in favorite channel search mode is 4:3, regardless of the input signal format.

NOTICE OF POSSIBLE ADVERSE EFFECTS ON TV PICTURE DISPLAY

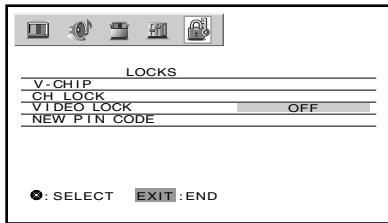
Avoid displaying stationary images on your TV screen for extended periods of time. Fixed (non-moving) patterns or images (including but not limited to PIP/POP windows, closed captions, video game patterns, TV station logos, stock tickers, websites, and special formats that do not use the entire screen) can become permanently ingrained in the cathode ray tube(s) of the TV and cause subtle but permanent ghost images. **This type of damage is NOT COVERED BY YOUR WARRANTY.** See item 33 on page 4 for details.

Using the LOCKS menu

The LOCKS menu includes the V-Chip, CH Lock, Video Lock, and New PIN Code functions. You can use these functions after entering the correct PIN code.

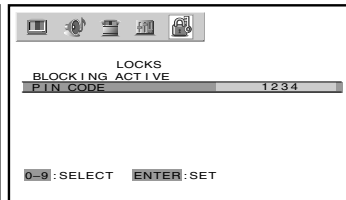
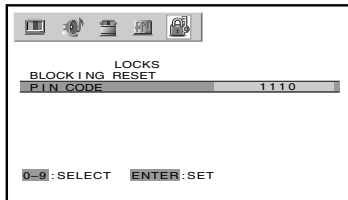
Entering the PIN code

1. Press MENU, and then press ◀ or ▶ until the LOCKS menu appears.



2. Press ▲ or ▼ to display the PIN code entering mode.

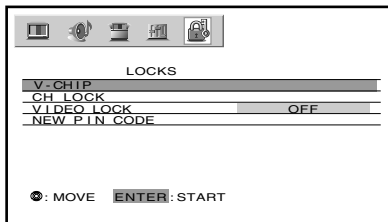
- Blocking Reset status: Set your 4-digit code by pressing the Number buttons (0–9).
- When the PIN code is already stored: Press the Number buttons (0–9) to enter the 4-digit PIN code used for blocking channels.



If the wrong PIN code is entered, the message “Incorrect” appears. Enter the code again, and then press ENTER.

If you cannot remember your PIN code

1. While the PIN code entering screen is displayed, press RECALL four times within five seconds. The PIN code will be released (Blocking Reset status restored).
2. Set a new 4-digit code, and then press ENTER. The LOCKS menu appears.



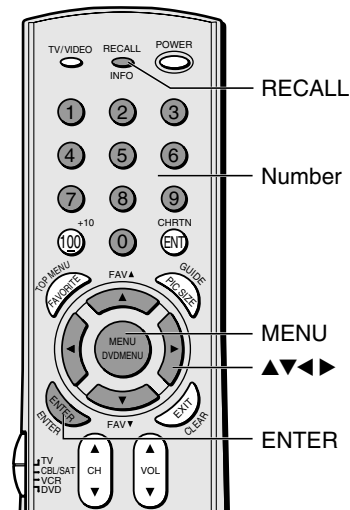
Continue to set each item following the steps.

Using the V-CHIP menu

Some TV programs and movies include signals that classify the content of the program (violence, sex, dialog, language). The V-CHIP control feature in this TV detects the signals and blocks the programs according to your selections. To use this feature, perform the following setup.

Note:

The V-Chip function is available only for the U.S. V-Chip system. The Canadian V-Chip system is not supported.



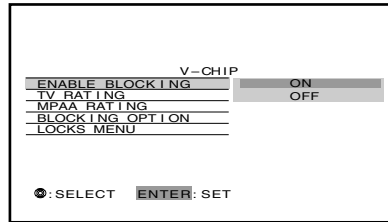
(continued on next page)

ENABLE BLOCKING

- From the LOCKS menu, press ▼ or ▲ to highlight V-CHIP, and then press ENTER.

The V-CHIP menu appears.

- Press ▼ or ▲ to highlight ENABLE BLOCKING, and then press ENTER.



- Press ▲ or ▼ to select ON or OFF.
ON : To enable your setting (Lock)
OFF: To release your setting (Unlock)

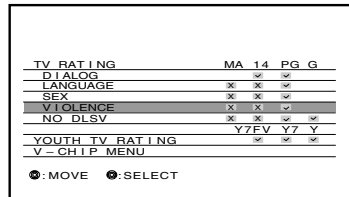
Note: The CH LOCK function is not affected by this selection.

TV RATING (Independent rating system for broadcasters)

- From the V-CHIP menu, press ▼ or ▲ to highlight TV RATING, and then press ENTER.

The TV RATING menu appears.

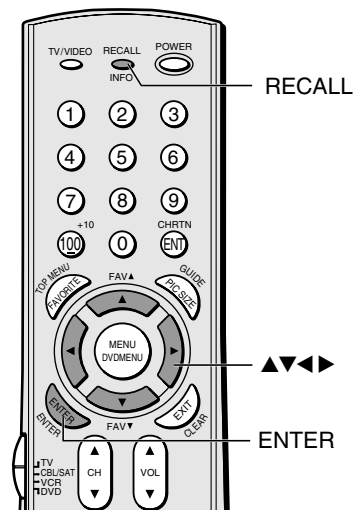
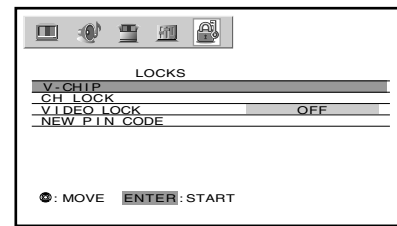
- Press ▼ or ▲ to select item.
- Press ► to lock (display "X")
Press ◀ to unlock (display "✓")
- Repeat steps 2 and 3 to set the next item.



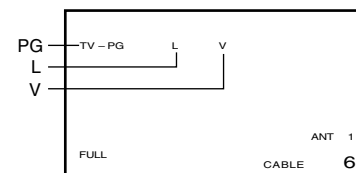
The TV age-based ratings and content themes you can lock are listed in the table below.

Ratings	Description and Content themes
MA	Mature Audience Only (This program is specifically designed to be viewed by adults and therefore may be unsuitable for children under 17.) L) Crude or indecent language S) Explicit sexual activity V) Graphic violence
14	Parents Strongly Cautioned (This program contains some material that many parents would find unsuitable for children under 14 years of age.) D) Intensely suggestive dialog L) Strong, coarse language S) Intense sexual situations V) Intense violence
PG	Parental Guidance Suggested (This program contains material that parents may find unsuitable for younger children.) D) Some suggestive dialog L) Infrequent coarse language S) Some sexual situations V) Moderate violence
G	General Audience (Most parents would find this program suitable for all ages.)
Y7, Y7FV	Directed to Older Children (This program is designed for children age 7 and above. Note: Programs in which fantasy violence may be more intense or more combative than other programs in this category are designated Y7FV.)
Y	All Children (This program is designed to be appropriate for all children.)

LOCKS menu

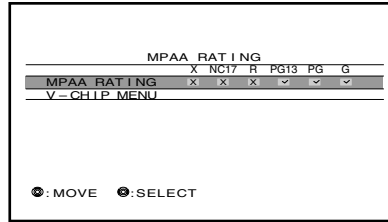


Press RECALL to display the rating of the TV program you are currently watching.

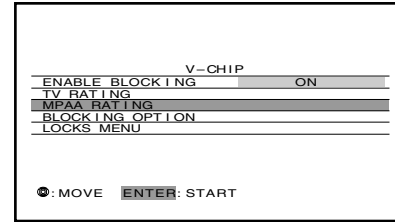


MPAA RATING (Independent rating system for movies)

1. From the V-CHIP menu, press ▼ or ▲ to highlight MPAA RATING, and then press ENTER.
MPAA RATING menu appears.
2. Press ▲ or ▼ to highlight MPAA RATING.
3. Press ► to lock ("X") or press ◀ to unlock ("✓").



V-CHIP menu



The movie ratings you can lock are described as follows:

- X : X-rated (For adults only)
- NC17: Not intended for anyone 17 and under
- R : Restricted (Under 17 requires accompanying parent or adult guardian.)
- PG13 : Parents Strongly Cautioned (Some material may be inappropriate for children under 13)
- PG : Parental Guidance Suggested (Some material may not be suitable for children)
- G : General Audience (Appropriate for all ages)

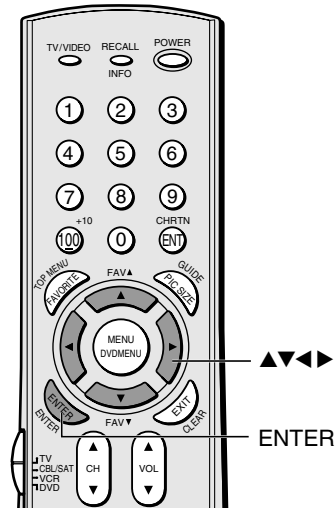
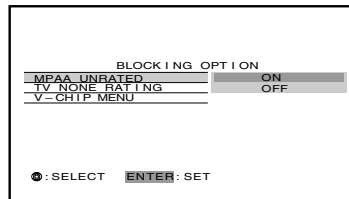
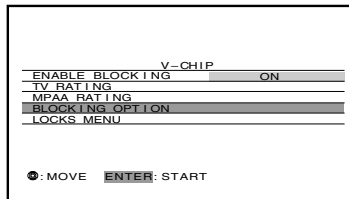
BLOCKING OPTION

1. From the V-CHIP menu, press ▼ or ▲ to highlight BLOCKING OPTION, and then press ENTER.
The BLOCKING OPTION menu appears.

2. Press ▲ or ▼ to select item.

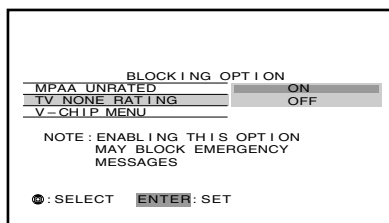
MPAA UNRATED:

1. Highlight MPAA UNRATED, and then press ENTER.
2. Press ▲ or ▼ to select ON (Lock) or OFF (Unlock) for unrated programs in the MPAA rating system, then press ENTER.



TV NONE RATING

1. Highlight TV NONE RATING, and then press ENTER.
2. Press ▲ or ▼ to select ON (Lock) or OFF (Unlock) for programs rated NONE in the TV PARENTAL GUIDELINES, then press ENTER.



V-CHIP MENU:

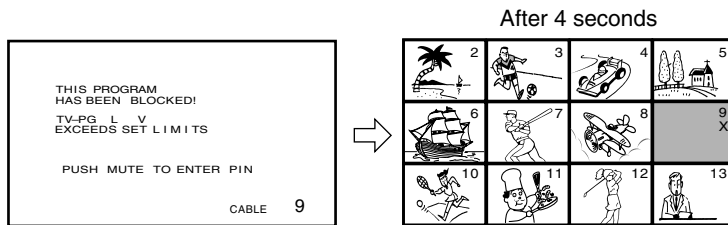
Highlight V-CHIP menu, then press ENTER to return to the V-CHIP menu.

Caution

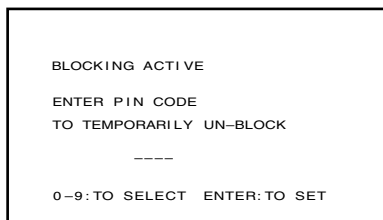
Be aware that setting the TV None Rating to ON may block the broadcast of emergency information. The menu will display the note, "Enabling this option may block emergency messages" to warn you of this possibility.

Unlocking programs temporarily

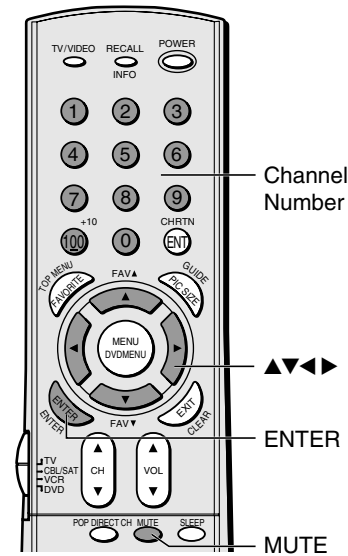
1. If you try to watch a TV program that exceeds the rating limits you set, the TV enters program lock mode. After 4 seconds, the TV automatically starts the auto favorite channel search function (see page 39). You can either unlock the program temporarily (see steps 2-4) or select an unlocked program to watch.



2. To temporarily unlock the program, press MUTE while the message is on the screen.
3. Press the Number buttons (0-9) to enter your 4-digit PIN code.



4. Press ENTER.
If the correct code is entered, the program lock mode is released and the normal picture appears.
All locking is disabled until the TV is turned off, and will be enabled when the TV is turned on again.



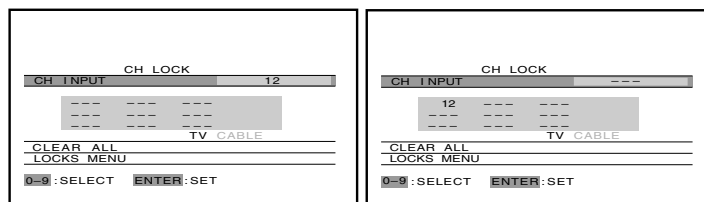
Locking channels

With the CH LOCK feature, you can lock specific channels. You will not be able to tune locked channels with the Channel ▲ ▼ buttons or Channel Number buttons unless you clear the setting.

You can lock a maximum of nine channels.

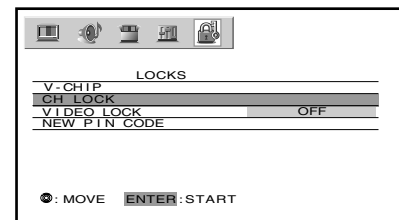
To lock channels:

1. Make sure the POP is not tuned to a channel you want to lock.
2. From the LOCKS menu, press ▲ or ▼ to highlight CH LOCK, and then press ENTER.
The CH LOCK menu appears, and CH INPUT will be highlighted.
3. Press the Channel Number buttons to enter the channel you want to lock.
4. Press ENTER.



5. Repeat steps 3 and 4 for other channels.

LOCKS menu

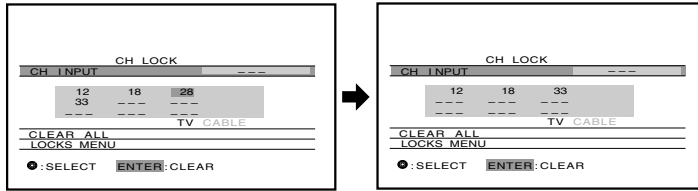


Note:

After programming CH LOCK, change the channel before turning off the TV.

To unlock individual channels:

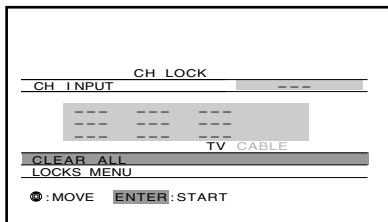
1. From the LOCKS menu, press ▲ or ▼ to highlight CH LOCK, then press ENTER.
The CH LOCK menu appears.
2. Press ▲▼◀▶ to highlight the channel you want to unlock, then press ENTER.



3. Repeat step 2 for other channels.

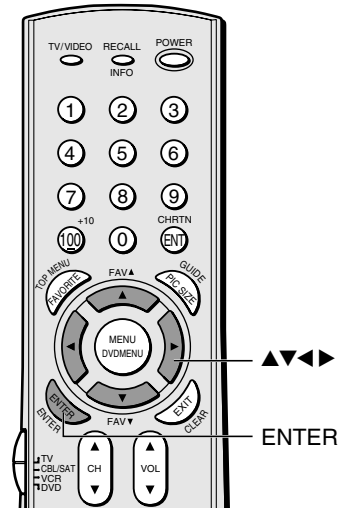
To unlock all locked channels at once:

Press ▲ or ▼ to highlight CLEAR ALL, and then press ENTER.



Note:

After programming the channel lock feature, change the channel before turning off the TV.



Locking the video inputs

With the VIDEO LOCK feature, you can lock out the input sources (Video 1, Video 2, Video 3, ColorStream HD1, ColorStream HD2, HDMI) and channels 3 and 4.

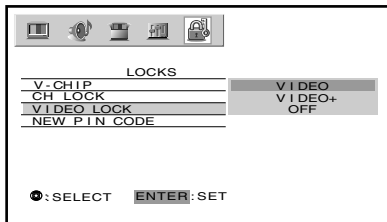
You will not be able to select the input sources with the TV/VIDEO button or Channel buttons unless you clear the setting.

To set up the video lock:

1. From the LOCKS menu, press ▲ or ▼ to highlight VIDEO LOCK, then press ENTER.
2. Press ▲ or ▼ to highlight the level of video locking you want (Video, Video+, or Off), as follows:
 VIDEO : Locks Video 1, Video 2, Video 3, ColorStream HD1, HD2 and HDMI.
 VIDEO+ : Locks Video 1, Video 2, Video 3, ColorStream, HD1/HD2, HDMI and channels 3 and 4. This option should be used if you use the antenna terminal to play a video tape.

Note: Make sure the main and POP windows are not currently tuned to channel 3 or 4 or one of the video modes.

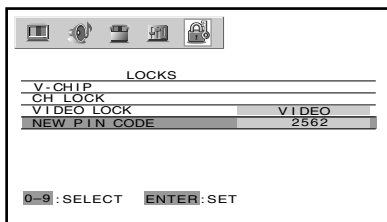
OFF : Unlocks all video input sources.



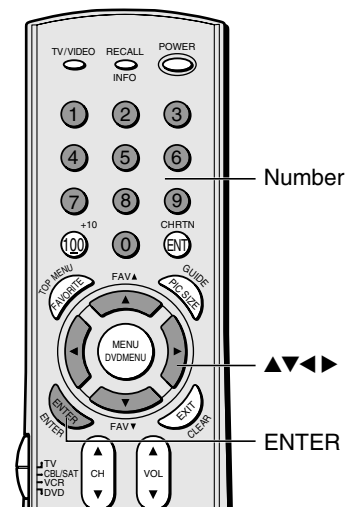
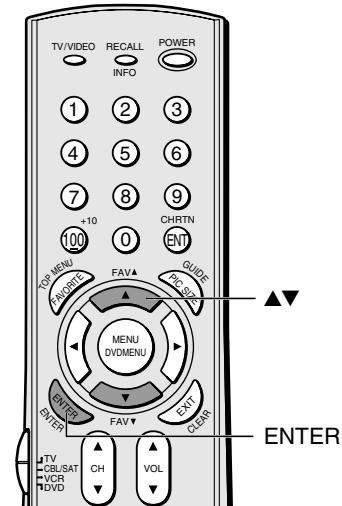
3. Press ENTER.

Changing the PIN code

1. From the LOCKS menu, press ▲ or ▼ to highlight NEW PIN CODE.
2. Press the Number buttons (0-9) to enter a 4-digit code. The numbers you enter will replace the dashes in the display.



3. Press ENTER. The new PIN code is now active.



Adjusting the picture

Selecting the picture mode

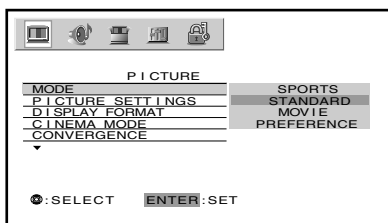
You can select your desired picture type from four picture modes: Sports, Standard, Movie, and Preference.

Mode	Picture Quality
Sports	Bright and dynamic picture (factory setting)
Standard	Standard picture setting (factory setting)
Movie	Movie-like picture setting (factory setting)
Preference	Your personal preference*

*(see “Saving your new preferences” on page 47.)

To select the picture mode:

1. Press MENU, and then press ◀ or ▶ until the PICTURE menu appears.
2. Press ▼ or ▲ to highlight MODE, and then press ENTER.
3. Press ▼ or ▲ to select the mode you prefer, then press ENTER.



Note:

If you select one of the factory-set picture modes (SPORTS, STANDARD, or MOVIE) and then change a picture quality setting (for example, increase the contrast), the picture mode automatically changes to PREFERENCE in the Picture menu.

To save your new picture quality settings, you must select SAVE (see page 47) before closing the Picture menu or the TV will return to the previous picture mode.

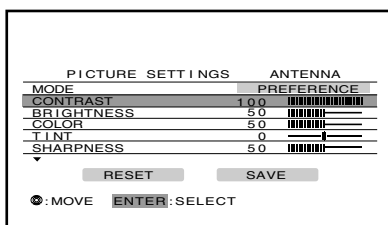
Adjusting the picture quality

You can adjust the picture quality to your personal preferences, including the contrast, brightness, color, tint, sharpness, and color temperature.

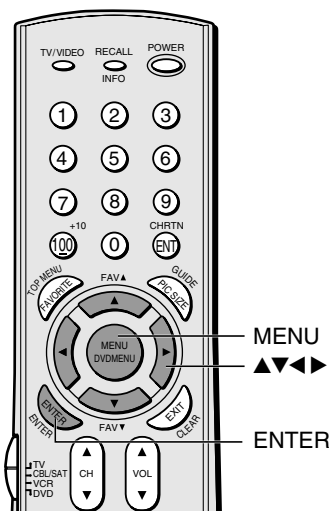
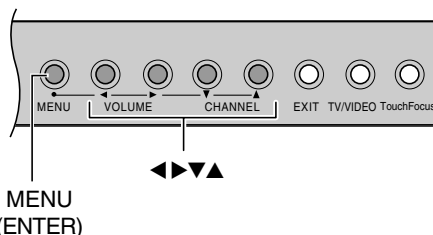
Selection	◀ Pressing ▶
contrast	lower higher
brightness	darker lighter
color	paler deeper
tint	reddish greenish
sharpness	softer sharper
color temperature	cool medium warm

To adjust the picture quality:

1. Press MENU, and then press ◀ or ▶ until the PICTURE menu appears.
2. Press ▼ or ▲ to highlight PICTURE SETTINGS, then press ENTER.
The PICTURE SETTINGS menu appears.
3. Press ▲ or ▼ until the item you want to adjust is highlighted, then press ENTER.
4. Press ◀ or ▶ to adjust the level.



TV front panel



The PICTURE qualities you adjusted can be saved in the TV's memory (see page 47).

You can keep these settings or choose factory-set options, as described under “Selecting the picture mode” above.

Saving your new preferences

You can save the PICTURE qualities you adjusted (contrast, brightness, color, tint, sharpness, color temperature and CableClear® DNR) in the picture PREFERENCE mode.

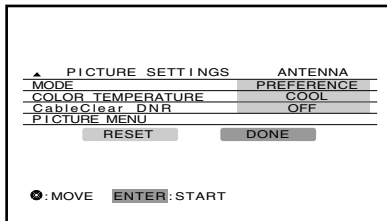
To save your new preferences:

1. Press MENU, and then press ◀ or ▶ until the PICTURE menu appears.
2. Press ▲ or ▼ to highlight PICTURE SETTINGS, and then press ENTER.

The PICTURE SETTINGS menu appears.

3. Press ▲▼◀▶ to highlight SAVE, and then press ENTER.

When complete, SAVE changes to “DONE”.



The picture mode automatically changes to PREFERENCE (see “Selecting the picture mode” on page 46).

Selecting the color temperature

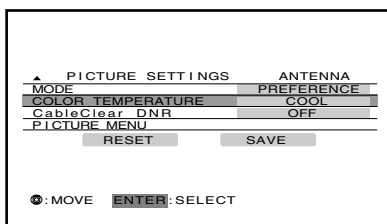
You can change the quality of the picture by selecting from three preset color temperatures: cool, medium, and warm.

To select the color temperature:

1. Press MENU, and then press ◀ or ▶ until the PICTURE menu appears.
2. Press ▲ or ▼ to highlight PICTURE SETTINGS, and then press ENTER.

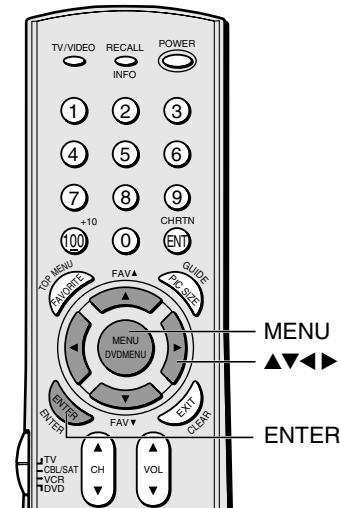
The PICTURE SETTINGS menu appears.

3. Press ▲ or ▼ to highlight COLOR TEMPERATURE, and then press ENTER.



4. Press ◀ or ▶ to select the mode you prefer.

Mode	Picture Quality
cool	bluish
medium	neutral
warm	reddish

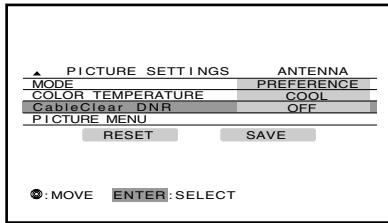


Using the CableClear® DNR feature

CableClear® DNR reduces visible interference in your TV picture. This is useful when receiving a broadcast with a weak signal (especially a Cable channel) or playing a video cassette or disc damaged by repeated use.

To turn on CableClear DNR:

1. Press MENU, and then press ◀ or ▶ until the PICTURE menu appears.
2. Press ▲ or ▼ to highlight PICTURE SETTINGS, and then press ENTER.
The PICTURE SETTINGS menu appears.
3. Press ▲ or ▼ to highlight CableClear DNR, and then press ENTER.



4. Press ◀ or ▶ to select AUTO.

To turn off CableClear DNR:

Select OFF in step 4 above.

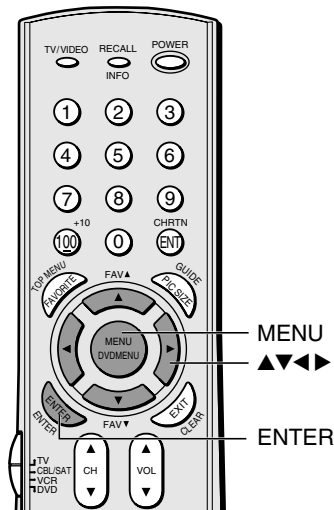
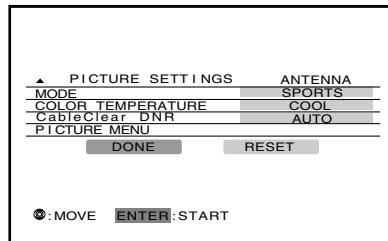
Resetting picture adjustments

The RESET function adjusts the picture qualities to the following factory settings:

Mode	sports	Tint	center (0)
Contrast	max (100)	Sharpness	center (50)
Brightness	center (50)	Color temperature	cool
Color	center (50)	CableClear DNR	auto

To reset the picture adjustments:

1. Press MENU, and then press ◀ or ▶ until the PICTURE menu appears.
2. Press ▲ or ▼ to highlight PICTURE SETTINGS, and then press ENTER. The PICTURE SETTINGS menu appears.
3. Press ▲ or ▼ to highlight RESET.
4. Press ENTER until the RESET changes to "DONE".



Note:

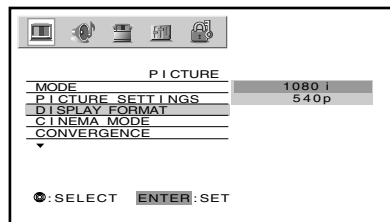
- When in the ColorStream or HDMI mode, the words "CableClear DNR" will change to "DNR" in the menu.
- DNR is not selectable in HDMI mode.

Selecting the display format (for 480p signals only)

Use this feature to convert 480p input signals to 540p or 1080i.

To select the display format:

1. Press MENU, and then press ◀ or ▶ until the PICTURE menu appears.
2. Press ▲ or ▼ to highlight DISPLAY FORMAT, and then press ENTER.
3. Press ▲ or ▼ to select 540p or 1080i, whichever you prefer.

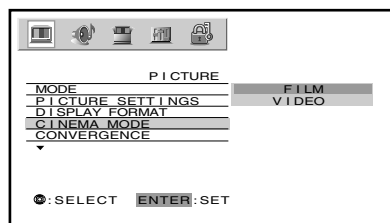


Selecting the cinema mode

When you view a DVD movie (3:2 pulldown processed or interlaced mode) from a DVD player connected to the ColorStream (component video) inputs on the TV, smoother and more natural motion can be obtained by setting the CINEMA MODE to FILM.

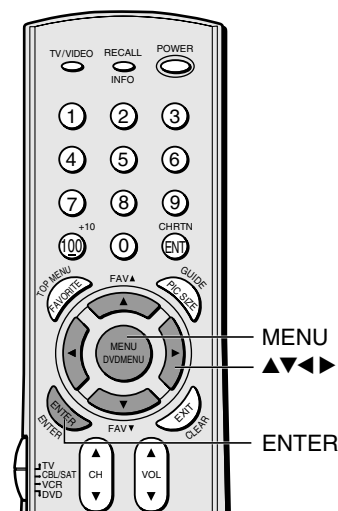
To set the CINEMA MODE to FILM:

1. Press MENU, and then press ◀ or ▶ until the PICTURE menu appears.
2. Press ▲ or ▼ to highlight CINEMA MODE, and then press ENTER.
3. Press ▲ or ▼ to select FILM.



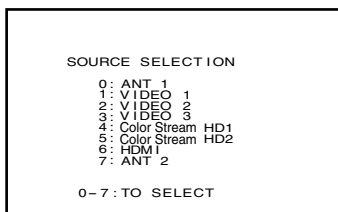
To turn off the CINEMA MODE:

Press ▲ or ▼ to select VIDEO in step 3 above.

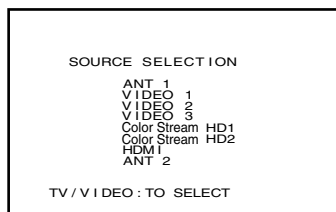


Selecting the video input source

Press TV/VIDEO on the remote control or TV front panel to view a signal from another device connected to your TV, such as a VCR or DVD player (see illustrations below). You can select ANT 1, VIDEO 1, VIDEO 2, VIDEO 3, ColorStream HD1, ColorStream HD2, HDMI, or ANT 2, depending on which input jacks are used for connecting the devices (see “Connecting your TV” on page 8).



Pressing TV/VIDEO on the remote control displays the current signal source (press TV/VIDEO again or 0-7 to change)



Pressing TV/VIDEO on the TV changes the current signal source

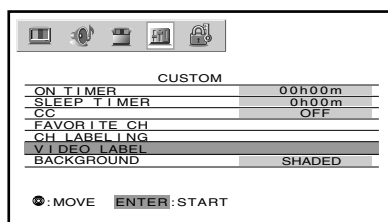
Labeling the video input sources

The video label feature allows you to label each input source for your TV from the following preset list of labels:

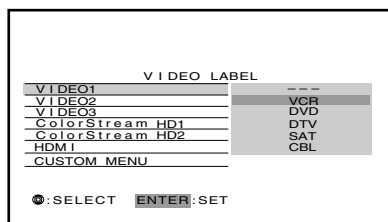
- : Uses the default label name
- VCR : Video cassette recorder
- DVD : DVD video
- DTV : Digital TV set-top box
- SAT : Satellite box
- CBL : Cable box

To label the video input sources:

1. Press MENU, and then press ◀ or ▶ until the CUSTOM menu appears.
2. Press ▲ or ▼ to highlight VIDEO LABEL.



3. Press ENTER to display the VIDEO LABEL menu.
4. Press ▲ or ▼ to highlight the video source you want to label and then press ENTER.
5. Press ▲ or ▼ to select the desired label for that input source.



6. Finish labeling the other video sources as desired. To return to the previous menu, press ▲ or ▼ to highlight CUSTOM MENU, and then press ENTER.
7. To exit the menu, press EXIT.

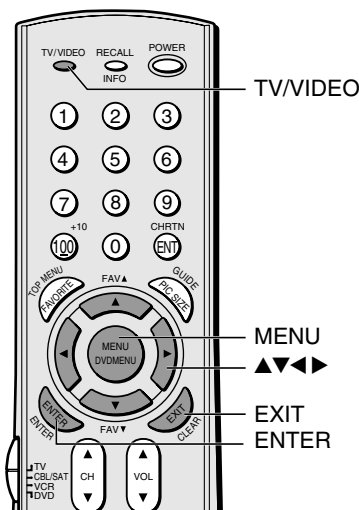
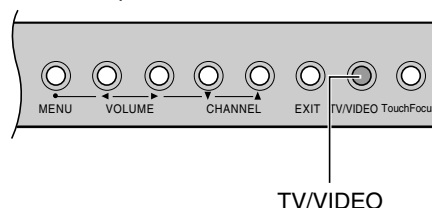
Note:

- When ColorStream HD 1 or HD 2 is selected, the VIDEO OUT jack does not output a signal. To receive a VIDEO OUT signal, use a standard video or S-video IN connection instead of the ColorStream connection.
- In POP double-window mode, the main window will display 480i signals only. If you select ColorStream HD1 or ColorStream HD2 while the POP picture is active, the message “Not Available” will display.

Note the following regarding the HDMI source selection:

Never connect this TV to a personal computer (PC). This TV is not intended for use with a PC. See “Connecting a device to the HDMI input” on page 15 for details.

TV front panel



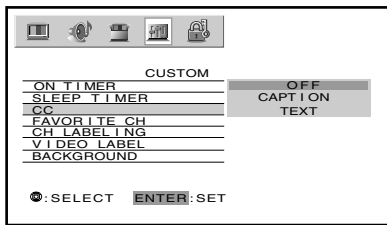
Using the closed caption feature

The closed caption feature has two options:

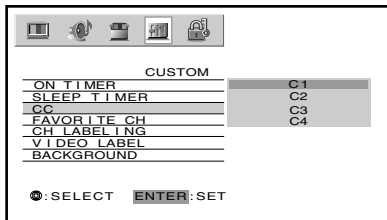
- **Captions**—An on-screen display of the dialogue, narration, and sound effects of TV programs and videos that are closed captioned (usually designated as “CC” in program listings).
- **Text**—An on-screen display of information not related to the current program, such as weather or stock data (when provided by individual stations).

To view captions or text:

1. Tune the TV to the desired program.
2. Press MENU, and then press ◀ or ▶ to display the CUSTOM menu.
3. Press ▲ or ▼ to highlight CC, and then press ENTER.



4. Press ▲ or ▼ to highlight CAPTION or TEXT, and then press ENTER.



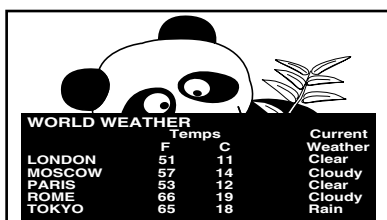
- To view captions, highlight CAPTION in step 4 above, and then highlight C1, C2, C3, or C4 (C1 displays translation of the primary language in your area).

Note: If the program or video you selected is not closed captioned, captions will not display on the screen.



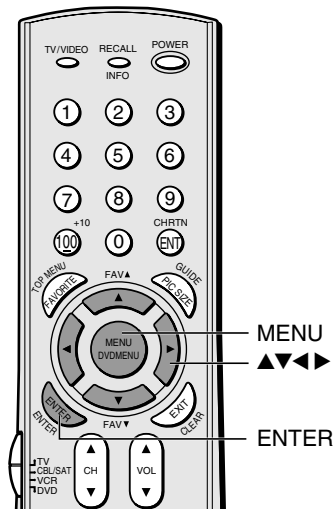
- To view text, highlight TEXT in step 4 above, and then highlight T1, T2, T3, or T4.

Note: If text is not available in your area, a black rectangle may appear on your screen. If this happens, turn the Closed Caption feature OFF.



To turn off the Closed Caption feature:

Highlight OFF in step 4.



Note:

A closed caption signal may not display in the following situations:

- when a videotape has been dubbed
- when the signal reception is weak
- when the signal reception is nonstandard

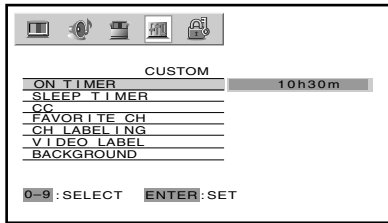
NOTICE OF POSSIBLE ADVERSE EFFECTS ON TV PICTURE DISPLAY

Avoid displaying stationary images on your TV screen for extended periods of time. Fixed (non-moving) patterns or images (including but not limited to PIP/POP windows, closed captions, video game patterns, TV station logos, stock tickers, websites, and special formats that do not use the entire screen) can become permanently ingrained in the cathode ray tube(s) of the TV and cause subtle but permanent ghost images. **This type of damage is NOT COVERED BY YOUR WARRANTY.** See item 33 on page 4 for details.

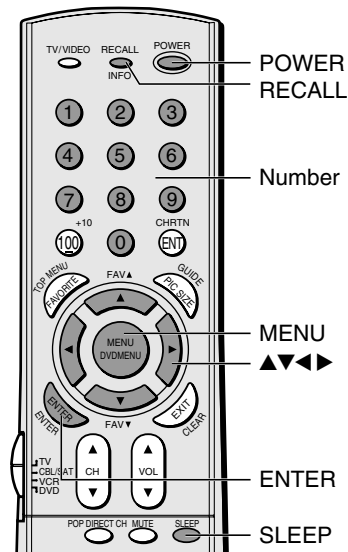
Setting the ON timer

To set the ON timer to turn on the TV automatically:

1. Press MENU, and then press ◀ or ▶ until the CUSTOM menu appears.
2. Press ▲ or ▼ to highlight ON TIMER, and then press ENTER.
3. Press the Number buttons (0-9) to enter the length of time until the TV turns on automatically.
You can set the ON timer in 10-minute increments, up to 12h00m.
4. Press ENTER to start the timer.



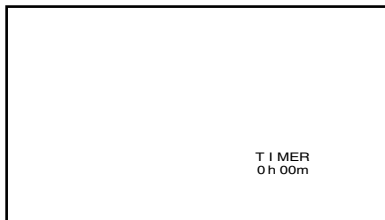
5. Press POWER to turn off the TV.
The TV will turn on automatically after the length of time you set in the ON Timer.



Setting the sleep timer

To set the sleep timer to turn off the TV automatically:

1. Press SLEEP to set the length of time until the TV turns off.



Every time you press SLEEP, the time display will increase by 10 minutes, up to 3 hours.

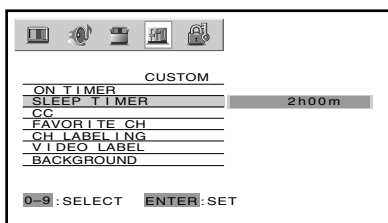
0h00m → 0h10m → 0h20m → ... → 2h50m → 3h00m → 0h00m

To cancel the sleep timer:

Press SLEEP until it is set to 0h00m.

The timer can also be set using the on-screen menu:

1. Press MENU, and then press ◀ or ▶ until the CUSTOM menu appears.
2. Press ▲ or ▼ to highlight SLEEP TIMER, and then press ENTER.
3. Press the Number buttons (0-9) to enter the length of time until the TV turns off automatically.
4. Press ENTER to start the timer.



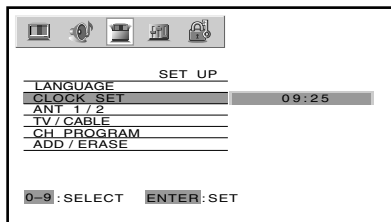
Note :

- When an instant power failure occurs, the ON timer and sleep timer settings may be cleared.
- To display the amount of time left until the TV turns on or off automatically, press RECALL.

Setting the clock

To set the clock:

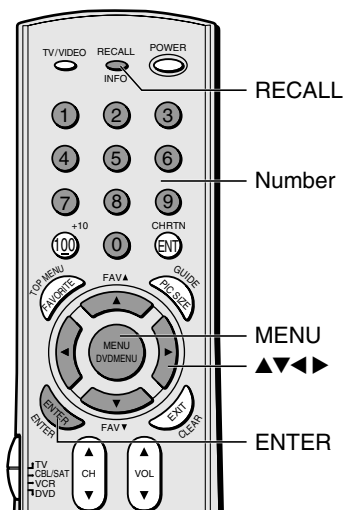
1. Press MENU, and then press ◀ or ▶ until the SET UP menu appears.
2. Press ▲ or ▼ to highlight CLOCK SET, and then press ENTER.
3. Press the Number buttons (0-9) to enter the correct time. The clock operates on a 24-hour cycle.
4. Press ENTER to start the clock.



To display the time on-screen:
Press RECALL.

Note :

If the TV's power source is interrupted (the power cord is unplugged or a power failure occurs), the clock must be reset.



Adjusting the sound

Muting the sound

Press MUTE to temporarily reduce (1/2 MUTE) or turn off (MUTE) the sound. While the sound is off, the screen will display “1/2 MUTE” or “MUTE” in the lower right corner. Every time you press MUTE, the mute mode will change in the following order.

→ Normal → 1/2 MUTE → MUTE →

When you select “MUTE” mode, the closed caption feature is automatically activated. To deactivate this feature, deactivate MUTE. This feature works only when the closed caption mode is set to OFF. See “Using the closed caption feature” on page 51 for more information.

Selecting stereo/SAP broadcasts

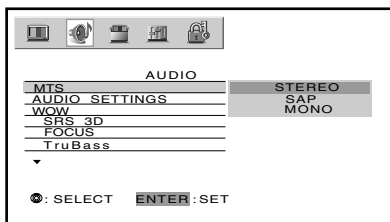
The multi-channel TV sound (MTS) feature allows you to listen to high-fidelity stereo sound while watching TV. MTS can also transmit a second audio program (SAP) containing a second language, music, or other audio information (when provided by individual stations).

When the TV receives a stereo or SAP broadcast, the word STEREO or SAP appears on-screen every time the TV is turned on, the channel is changed, or the RECALL button is pressed.

The MTS feature is not available when the TV is in VIDEO mode.

To listen to stereo sound:

1. Press MENU, and then press ◀ or ▶ until the AUDIO menu appears.
2. Press ▲ or ▼ to highlight MTS, and then press ENTER.
3. Press ▲ or ▼ to highlight STEREO, and then press ENTER.

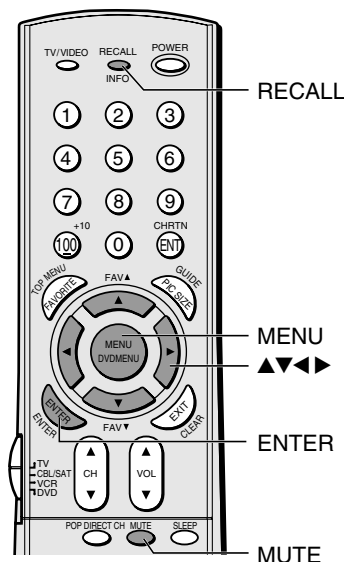


You can leave your TV in STEREO mode because it will automatically output the type of sound being broadcast (stereo or monaural). The word “STEREO” or “SAP” displays in yellow in the menu when the TV receives the signal.

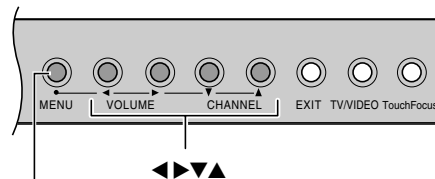
If the stereo sound is noisy, select MONO to reduce the noise.

To listen to SAP (if available):

1. Press MENU, and then press ◀ or ▶ until the AUDIO menu appears.
2. Press ▲ or ▼ to highlight MTS, and then press ENTER.
3. Press ▲ or ▼ to highlight SAP, and then press ENTER. You will hear the station's second audio program (if available) from the speakers, while viewing the original program's picture (see note at right).



TV front panel



MENU
(ENTER)

Note :

A second audio program (SAP) can be heard only on those TV stations that offer it.

For example, a station might broadcast music as a second audio program. If you have SAP on, you will see the current program on the screen but hear music instead of the program's normal audio.

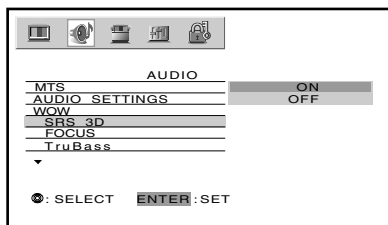
However, if you have SAP on, and the station you are watching is not currently broadcasting a second audio program, the station's normal audio will be output. Occasionally there is no sound at all in SAP mode. If this happens, set the MTS feature to STEREO mode.

Using the WOW™ surround sound feature

WOW is a special combination of SRS Labs audio technologies that creates a thrilling surround sound experience with deep, rich bass from stereo sound sources. Your TV's audio will sound fuller, richer, and wider.

To adjust the WOW feature:

1. Select STEREO mode (See “Selecting stereo/SAP broadcasts” on page 54).
2. Press MENU, and then press ◀ or ▶ until the AUDIO menu appears.
3. Press ▲ or ▼ to highlight the desired WOW feature you want to adjust, then press ENTER.
 - SRS 3D — To turn on or off the surround sound effect.
 - FOCUS — To turn on or off the vocal emphasis effect.
 - TruBass — To select your desired bass expansion level (HIGH, LOW or OFF).



4. Press ▲ or ▼ to adjust the item, then press ENTER.

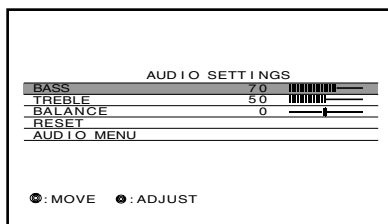
Adjusting the sound quality

You can change the quality of your TV's sound by adjusting the bass, treble, and balance.

To adjust the sound quality:

1. Press MENU, and then press ◀ or ▶ until the AUDIO menu appears.
2. Press ▲ or ▼ to highlight AUDIO SETTINGS, and then press ENTER.

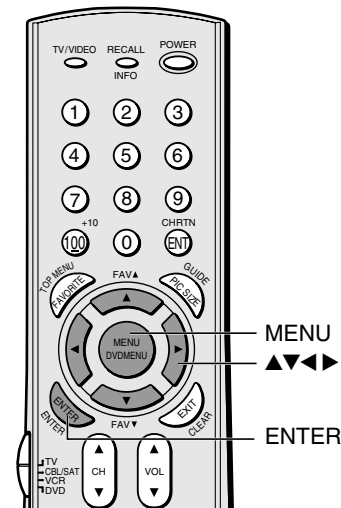
The AUDIO SETTINGS menu appears.



3. Press ▲ or ▼ to highlight the item you want to adjust.
4. Press ◀ or ▶ to adjust the level.
 - ◀ makes the sound quality weaker or increases the balance in the left channel, depending on the item selected.
 - ▶ makes the sound quality stronger or increases the balance in the right channel, depending on the item selected.

Note:

If the broadcast is monaural, the WOW SRS 3D surround sound effect will not work.



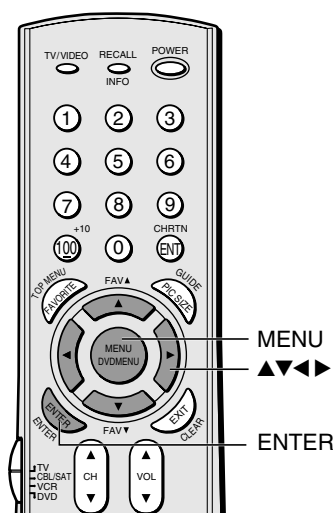
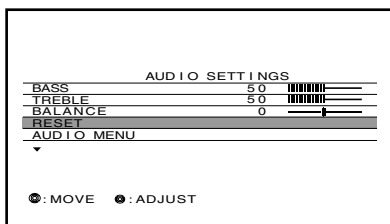
Resetting your audio adjustments

The RESET function returns the audio adjustments to the following factory settings:

- Bass center (50)
- Treble center (50)
- Balance center (0)

To reset the audio adjustments:

1. Press MENU, and then press ◀ or ▶ until the AUDIO menu appears.
2. Press ▲ or ▼ to highlight AUDIO SETTINGS, and then press ENTER. The AUDIO SETTINGS menu appears.
3. Press ▲ or ▼ to highlight RESET, and then press ENTER.

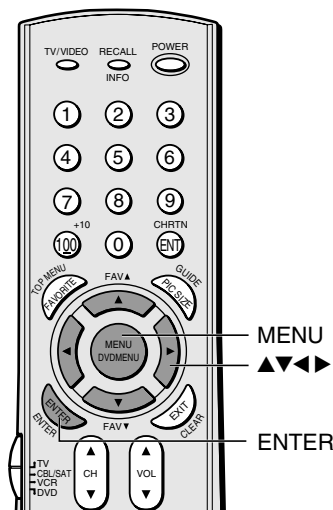
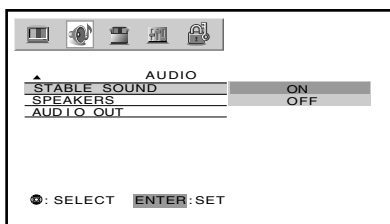


Using the StableSound® feature

When the signal source is changed, the StableSound feature limits the highest volume level to prevent extreme changes in volume (for example, to prevent the sudden increase in volume that often happens when a TV program switches to a commercial).

To turn on the StableSound feature:

1. Press MENU, and then press ◀ or ▶ until the AUDIO menu appears.
2. Press ▲ or ▼ to highlight STABLE SOUND, and then press ENTER.
3. Press ▲ or ▼ to select ON, and then press ENTER.



To turn off the StableSound feature:

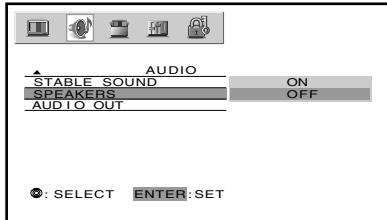
Select OFF in step 3 above.

Turning off the built-in speakers

Use this feature to turn off the TV speakers when you connect an audio system (See “Connecting an audio system” on page 16).

To turn off the built-in speakers:

1. Press MENU, then press ◀ or ▶ until the AUDIO menu appears.
2. Press ▲ or ▼ to highlight SPEAKERS, and then press ENTER.
3. Press ▲ or ▼ to select OFF, and then press ENTER.



To turn on the built-in speakers:

Select ON in step 3 above.

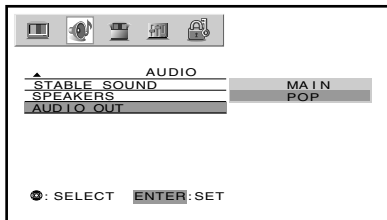
Selecting the Audio OUT sound

This feature allows you to select the sound source (MAIN or POP) that is output from the Audio OUT terminals (for example, see “Connecting two VCRs” on page 14).

This is useful when amplifying or recording the POP sound with external equipment while listening to the sound of the main picture through the built-in speakers.

To select the Audio OUT sound:

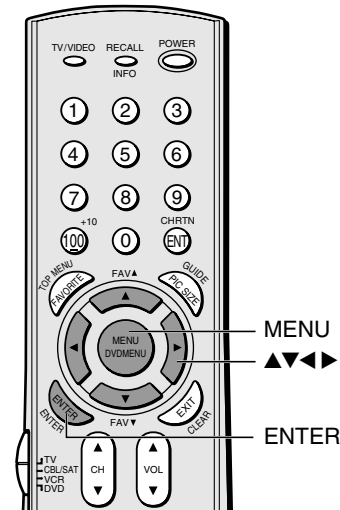
1. Press MENU, and then press ◀ or ▶ until the AUDIO menu appears.
2. Press ▲ or ▼ to highlight AUDIO OUT, and then press ENTER.
3. Press ▲ or ▼ to select MAIN or POP, and then press ENTER.



- MAIN: Outputs the sound of the main (left window) program to the Audio OUT terminals.
- POP: Outputs the sound of the POP (right window) program to the Audio OUT terminals.

Note:

Make sure the volume control of your audio amplifier is set to a moderate listening level.



Note:

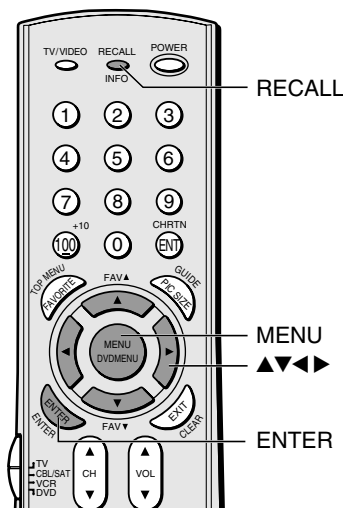
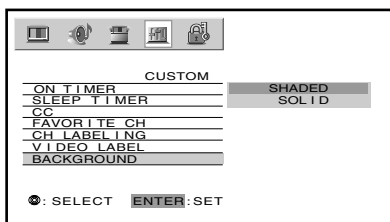
- When the POP window is closed, the sound of the main program is output through the AUDIO OUT terminals, even if POP is selected in the AUDIO OUT menu.
- The sound of the main program is always output through the TV speakers, regardless of the AUDIO OUT setting.

Selecting the background of the menu display

You can change the background of the menu display by selecting from two preset backgrounds: shaded and solid (gray).

To select the background:

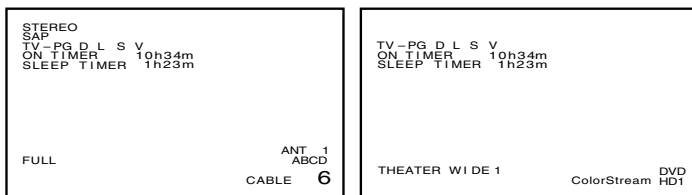
1. Press MENU, and then press ◀ or ▶ until the CUSTOM menu appears.
2. Press ▲ or ▼ to highlight BACKGROUND, and then press ENTER.
3. Press ▲ or ▼ to select either a SHADED or SOLID background, and then press ENTER.



Displaying on-screen information

Press RECALL to display the following information on-screen:

- Antenna mode (when in TV mode)
- Channel number or VIDEO mode selected
- Remaining time of ON/SLEEP timer (if set)
- Channel label (if set)
- Video label (when in video mode)
- Stereo or SAP audio status
- V-CHIP rating status
- Picture size



Understanding the auto power off feature

The TV will automatically turn itself off after approximately 15 minutes if it is tuned to a vacant channel or a station that completes its broadcast for the day. This feature does not work in VIDEO mode.

Understanding the last mode memory feature

If the power is cut off while you are viewing the TV, the Last Mode Memory feature turns on the TV automatically when the power is resupplied.

If the power is going to be off for a long time and you are going to be away from your TV, unplug the power cord to prevent the TV from turning on in your absence.

Appendix

Specifications

- This model complies with the specifications listed below.
- Design and specifications are subject to change without notice.
- This model may not be compatible with features and/or specifications that may be added in the future.



WARNING: RISK OF ELECTRIC SHOCK!

Never attempt to service the TV yourself. Opening and removing the covers may expose you to dangerous voltage or other hazards. Refer all servicing to a Toshiba Authorized Service Center.

Television System

NTSC standard

Channel Coverage

VHF: 2 through 13

UHF: 14 through 69

Cable TV: Mid band (A-8 through A-1, A through I)

Super band (J through W)

Hyper band (AA through ZZ, AAA, BBB)

Ultra band (65 through 94, 100 through 125)

Power Source

120 V AC, 60 Hz

Power Consumption

185 W (average)

Audio Power

15 W + 15 W

Speaker Type

51H85C : Two 6-5/16 inches (16 cm) round

57H85C : Two 6-5/16 inches (16 cm) round

65H85C : Two 6-5/16 inches (16 cm) round

Video/Audio Terminals

S-VIDEO INPUT

Y : 1 V(p-p), 75 ohms, negative sync.

C : 0.286 V(p-p) (burst signal), 75 ohms

VIDEO/AUDIO INPUT

VIDEO: 1 V(p-p), 75 ohms, negative sync.

AUDIO: 150 mV(rms) (30% modulation equivalent, 22 k ohms or more)

ColorStream® (component video) INPUT

Y : 1V(p-p), 75 ohms

PR: 0.7 V(p-p), 75 ohms

PB: 0.7 V(p-p), 75 ohms

AUDIO: 150 mV(rms), 22 k ohms or more

VIDEO/AUDIO OUTPUT

VIDEO: 1 V(p-p), 75 ohms, negative sync.

AUDIO: 150 mV(rms) (30% modulation equivalent, 2.2 k ohms or less)

Video/Audio Terminals (continued)

VARIABLE AUDIO OUTPUT

0–300 mV(rms) (30% modulation equivalent,

2.2 k ohms or less)

HDMI INPUT

HDMI compliant (type A connector)

HDCP compliant

E-EDID* compliant

Suggested scan rates: 1080i, 480p, 480i, 720p

HDMI Audio 2-channel PCM:

32/44.1/48 kHz sampling frequency;

16/20/24 bits per sample

Dimensions

51H85C:	Width	47-3/5 inches (1,209 mm)
	Height	50-2/5 inches (1,280 mm)
	Depth	22-4/9 inches (570 mm)
57H85C:	Width	52-3/4 inches (1,340 mm)
	Height	55-1/16 inches (1,399 mm)
	Depth	23-7/8 inches (606 mm)
65H85C:	Width	59-7/8 inches (1,521mm)
	Height	59-7/8 inches (1,521mm)
	Depth	26-1/4 inches (665 mm)

Mass

51H85C: 169 lbs (76.8 kg)

57H85C: 230 lbs (105 kg)

65H85C: 240 lbs (108 kg)

Supplied Accessories

Remote Control with 2 size “AA” alkaline batteries

* E-EDID = Enhanced-Extended Display Identification

Troubleshooting

Before calling a service technician, please check the following table for a possible cause of the symptom and some solutions.

Symptom	Solution
TV will not turn on	<ul style="list-style-type: none">• Make sure the power cord is plugged in, then press POWER.• The remote control batteries may be dead. Replace the batteries.
No picture, no sound	<ul style="list-style-type: none">• Check the antenna/cable connections.
No sound, picture OK	<ul style="list-style-type: none">• The sound may be muted. Press VOLUME.• The station may have broadcast difficulties. Try another channel.• Make sure the SPEAKERS function in the AUDIO menu is set properly.• Make sure "STEREO" is selected (page 54).
Poor picture, sound OK	<ul style="list-style-type: none">• Check the antenna connections.• The station may have broadcast difficulties. Try another channel.• Adjust the PICTURE menu.
Poor reception of broadcast channels	<ul style="list-style-type: none">• The station may have broadcast difficulties. Try another channel.• Check the antenna connections.• If you are using a VCR, make sure the TV/VCR button is set correctly.
Cannot receive above channel 13	<ul style="list-style-type: none">• Make sure the TV/CABLE switch is set to the mode that corresponds with the signal source type (cable company or outside antenna).
Black box appears on the screen	<ul style="list-style-type: none">• The closed caption feature may be set to one of the Text modes (T1, T2, T3, or T4). Turn closed captioning OFF.
Unable to select a certain channel	<ul style="list-style-type: none">• The channel may be locked out with the CH LOCK feature, or erased with the ADD/ERASE feature.
Multiple images	<ul style="list-style-type: none">• The station may have broadcast difficulties. Try another channel.• Antenna reception may be poor. Use a highly directional outdoor antenna.
Poor color or no color	<ul style="list-style-type: none">• The station may have broadcast difficulties. Try another channel.• Adjust the TINT and/or COLOR in the PICTURE menu.
No stereo or SAP sound from a known MTS broadcast	<ul style="list-style-type: none">• Make sure the MTS feature is set properly.
The remote control does not operate	<ul style="list-style-type: none">• Make sure the appropriate device mode is selected.• Remove all obstructions between the remote control and the remote control sensor in the TV.• The remote control batteries may be dead. Replace the batteries.
Cannot access signal input sources (Video1, Video2, Video3, ColorStream HD1/HD2, HDMI) and/or Channels 3 and 4.	<ul style="list-style-type: none">• Check the VIDEO LOCK feature.

Limited Canada Warranty

for 32" and Larger Television Models

Toshiba of Canada Limited ("TCL") makes the following limited warranties to original consumers in Canada.

THESE LIMITED WARRANTIES EXTEND TO THE ORIGINAL CONSUMER PURCHASER OR ANY PERSON RECEIVING THIS TELEVISION AS A GIFT FROM THE ORIGINAL CONSUMER PURCHASER AND TO NO OTHER PURCHASER OR TRANSFEREE.

TELEVISIONS PURCHASED IN CANADA AND USED ANYWHERE OUTSIDE OF CANADA, INCLUDING, WITHOUT LIMITATION, THE U.S.A. AND MEXICO, ARE NOT COVERED BY THESE WARRANTIES.

PRODUCTS PURCHASED ANYWHERE OUTSIDE OF CANADA, INCLUDING, WITHOUT LIMITATION, THE U.S.A. AND MEXICO, ARE NOT COVERED BY THESE WARRANTIES.

Limited One (1) Year Warranty on Parts and Labor

TCL warrants this television and its parts against defects in materials or workmanship for a period of one (1) year after the date of original retail purchase. DURING THIS PERIOD, TCL WILL, AT TCL'S OPTION, REPAIR OR REPLACE A DEFECTIVE PART WITH A NEW OR REFURBISHED PART WITHOUT CHARGE TO YOU FOR PARTS OR LABOR. During this period, TCL Authorized Service Depot personnel will come to your home when warranty service is required. Depending on the type of repair required, either the service will be performed in your home or the television will be taken to the TCL Authorized Service Depot for repair and returned to your home at no cost to you. IN-HOME SERVICE ONLY APPLIES WITHIN 100 KILOMETERS OF AN AUTHORIZED TCL SERVICE DEPOT.

Limited Two (2) Year Warranty on Picture Tube

TCL warrants the picture tube in this television against defects in materials or workmanship for a period of two (2) years after the date of original retail purchase. DURING THIS PERIOD, TCL WILL, AT TCL'S OPTION, REPAIR OR REPLACE A DEFECTIVE PICTURE TUBE WITH A NEW OR REFURBISHED PICTURE TUBE WITHOUT CHARGE TO YOU, PROVIDED THAT IF A DEFECTIVE PICTURE TUBE IS REPAIRED OR REPLACED AFTER ONE (1) YEAR AFTER THE DATE OF ORIGINAL RETAIL PURCHASE, YOU MUST PAY FOR ALL LABOR CHARGES IN CONNECTION WITH THE REPAIR OR REPLACEMENT THEREOF. During this period, TCL Authorized Service Depot personnel will come to your home when warranty service is required. Depending on the type of repair required, either the service will be performed in your home or the television will be taken to a TCL Authorized Service Depot for repair and returned to your home at no cost to you. IN-HOME SERVICE ONLY APPLIES WITHIN 100 KILOMETERS OF AN AUTHORIZED TCL SERVICE DEPOT.

Rental Units

The warranty for rental units begins on the date of first rental or thirty (30) days after the date of shipment to the rental firm, whichever comes first.

Limited Warranty for Commercial Units

TCL warrants televisions sold and used for commercial purposes as follows: all parts are warranted against defects in materials or workmanship for a period of ninety (90) days after the date of original retail purchase. DURING THIS PERIOD, TCL WILL, AT TCL'S OPTION, REPAIR OR REPLACE A DEFECTIVE PART WITH A NEW OR REFURBISHED PART WITHOUT CHARGE TO YOU.

Owner's Manual and Product Registration

Read this owner's manual thoroughly before operating this television.

Register your product online at www.toshiba.ca as soon as possible. By registering your television you will enable TCL to bring you new products specifically designed to meet your needs and help us to contact you in the unlikely event a safety notification is required. Failure to register your television does not diminish your warranty rights.

Your Responsibility

THE ABOVE WARRANTIES ARE SUBJECT TO THE FOLLOWING CONDITIONS:

- (1) You must retain your original bill of sale or provide other proof of purchase.
- (2) All warranty servicing of this television must be performed by an Authorized TCL Service Depot.
- (3) The warranties from TCL are effective only if this television is purchased in Canada from an authorized TCL dealer and operated in Canada.
- (4) Labor service charges for set installation, setup, adjustment of customer controls, and installation or repair of antenna systems are not covered by this warranty. Reception problems caused by inadequate antenna systems, misaligned satellite dishes, cable television distribution, VCRs, DVD players/recorders, personal computer level IEEE-1394 devices, and any other connected signal source device are your responsibility.
- (5) Warranties extend only to defects in materials or workmanship as limited above, and do not extend to any television or parts that have been lost or discarded by you or to damage to the television or parts caused by fires, misuse, accident, Acts of God (such as lightning or fluctuations in electric power), improper installation, improper maintenance, or use in violation of instructions furnished by TCL; use or malfunction through simultaneous use of this television and connected equipment; or to units that have been modified or had the serial number removed, altered, defaced, or rendered illegible.

How to Obtain Warranty Services

If, after following all of the operating instructions in this manual and reviewing the section entitled "Troubleshooting", you find that service is needed:

- (1) To find the nearest TCL Authorized Service Depot, visit TCL's web site at www.toshiba.ca.
- (2) Present your bill of sale or other proof of purchase to the Authorized Service Depot.

**For additional information, visit TCL's web site:
www.toshiba.ca**

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TOSHIBA OF CANADA LTD.

HEAD OFFICE: 191 McNABB STREET, MARKHAM, ONTARIO, L3R 8H2, CANADA – TEL: (905) 470-5400

SERVICE CENTERS:

TORONTO: 191 McNABB STREET, MARKHAM, ONTARIO L3R 8H2, CANADA – TEL: (905) 470-5400

MONTREAL: 18050 TRANS CANADA, KIRKLAND, QUEBEC, H9J 4A1, CANADA – TEL: (514) 390-7766

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